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SUCCESSFUL PRIMARY CARE PROGRAMS: CREATING THE WORKFORCE WE NEED

HEARING

BEFORE THE

SUBCOMMITTEE ON PRIMARY HEALTH AND AGING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS

UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

ON

EXAMINING SUCCESSFUL PRIMARY CARE PROGRAMS

APRIL 23, 2013

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C O N T E N T S

STATEMENTS

TUESDAY, APRIL 23, 2013

SUCCESSFUL PRIMARY CARE PROGRAMS: CREATING THE WORKFORCE WE NEED

TUESDAY, APRIL 23, 2013

U.S. SENATE,
SUBCOMMITTEE ON PRIMARY HEALTH AND AGING,
COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The subcommittee met, pursuant to notice, at 10 a.m. in room SD–430, Dirksen Senate Office Building, Hon. Bernie Sanders, presiding.

Present: Senators Sanders, Murphy, Warren, Burr, and Roberts.

OPENING STATEMENT OF SENATOR SANDERS

Senator SANDERS. OK. We have a lot of work to do. Let's get going.

I would like to thank all of you for being here today to discuss an issue of enormous consequence. It is no great secret that the American health care system faces enormous challenges, and not the least of which is our primary health care system.

I want to take this opportunity to thank our witnesses for being here, and I will be talking to Ms. Spitzgo in a moment. We thank her for the fine work that she has done.

In January, this subcommittee held a hearing on the primary care crisis in our country. In that hearing, we covered the extent of the primary care shortage. We noted that 1 in 5 Americans lives in an area where there are too few primary care providers. We learned that we already have, today, a significant shortage, and by 2025, we will need over 50,000 new primary care physicians and thousands and thousands of other providers, including nurse practitioners and physician assistants, to ensure access to the cost-effective primary care services people need.

The fact of the matter is that as a result of the primary health care crisis in this country, we are losing tens of thousands of people every single year who die because they do not get to a doctor when they should. We are seeing people ending up in hospitals when they could have been treated earlier because they did not gain access to medical care when they needed it and when it was appropriate.

We are also, as a Nation, spending almost twice as much per capita on health care as any other Nation. And I think it is important to understand that in America today, our ratio of primary care physicians to specialists is 30 to 70; 30 percent primary care, 70 percent specialists. That is exactly the reverse than what we are

seeing around the rest of the world, and I think that is one of the reasons we end up spending quite as much as we do compared to other countries.

Instituting major reforms in primary care and enabling people to see a doctor when they need one will save lives. It will ease suffering and allow our Nation to save billions of dollars in health care costs.

Let me just touch on a few of the areas that, I believe, we have got to address as we go forward in tackling this serious problem.

First, clearly, we need to substantially increase the number of primary care practitioners. We must implement a change in the culture of medical schools, which train many people into medicine with an interest in primary care, but ultimately choose specialties. Why is that? Why is it that a lot of young people come in with the desire to be primary care physicians, but end up not being so?

Needless to say, as part of that process, we also need to change the salaries and the reimbursement rates which strongly, at the present moment, incentivize medical students with high debt loads to go into the well-paying specialties rather than primary care.

I mean at the end of the day, we have to ask ourselves why some medical professionals who work harder end up earning substantially less than others. We need to have schools, medical schools, around the country to create a culture within their student body emphasizing the importance of primary care.

While some medical schools, in fact, do an excellent job—and we are going to hear some of that in our second panel—do a great job in educating and training primary care physicians, the truth is that some medical schools do relatively little. Some, in fact, do nothing; virtually nothing at all.

We should be taking, in my view, a hard look at why we are, through Medicare, providing $10 billion a year to training hospitals without really knowing what they are producing in terms of primary care physicians.

Furthermore, we need to greatly expand, in my view, the Federally Qualified Health Center program. We are going to hear some of that discussion today. In my view, FQHCs provide extremely high quality, cost-effective health care to millions of people in 50 States around this country, and it is a program that we have expanded in recent years. I think we need to do more.

We also need to start training more primary care residents in health centers through the Teaching Health Center program. This program, which is set to expire in 2015, only received $230 million over the last 5 years, a small amount compared to the over $50 billion going to train residents in traditional hospital-based settings over this period.

We know that these community-trained providers are more likely to continue serving the areas that need them the most. So expanding the number of Teaching Health Centers is good policy that Congress should support.

Last, but not least, we will obviously be hearing more about this from Ms. Spitzgo. In my view, we need to greatly expand the National Health Service Corps. In recent years, we have expanded that program. A lot more young people are now graduating medical school and dental school, and are able to serve in underserved

areas in primary health care because of the National Health Service Corps. We made some good steps forward. We have more to do.

With that, let me thank our Ranking Member, Senator Burr, for being with us, and ask him if he wants to make an opening remark.

OPENING STATEMENT OF SENATOR BURR

Senator BURR. Thank you, Mr. Chairman, and I look forward to working with you on this subcommittee, and I thank you for holding this hearing today.

Ms. Spitzgo, thank you for being here, and to our other witnesses, especially Dean Cunningham from the Brody School of Medicine at East Carolina University; a very special facility in North Carolina.

I appreciate the chance to discuss today the primary care workforce challenges that we are facing, and the possible solutions to addressing such critical issues.

The issue of improving the access to primary care services particularly for those in rural and underserved areas, through targeted efforts, is an important challenge that we must address. As we work to identify the programs with proven track records of success from which we can build upon, we must also take a closer look at the programs where there are opportunities to strengthen accountability, to ensure appropriate stewardship of taxpayer dollars.

Today's hearing represents an important opportunity to hear from our witnesses about what they think is working well, and where there are opportunities for improvements. Their ideas for solutions to build and improve our primary care workforce and to discuss ways in which we can ensure accountability for programs on behalf of patients and taxpayers.

Programs such as community health center programs administered by the Health Resources and Services Administration, can be an effective model for delivering primary care services to uninsured and the underinsured.

Research has shown that preventative care, care coordination for the chronically ill, and continuity of care, all of which are hallmarks of the primary care medicine, lead to improved outcomes and potential cost savings.

Additionally, programs like the National Health Service Corps were established to help address unmet primary health care needs particularly in rural and underserved areas. Through the National Health Service Corps recruitment program, we have made steady strides in increasing access to primary care for underserved populations. But more can be done in our efforts to accomplish this goal, and to retain a robust primary care workforce especially in the rural and underserved areas.

As Congress explores ways in which we can better target and enhance existing programs to address the workforce challenges impacting our Nation's patients, it is critical that we understand and examine the root causes and barriers patients face in accessing primary care, as well as the best metrics for judging success.

It is critical that we build upon the successful models of care delivery and ensure the accountability of existing workforce programs in order to maximize their success and its benefit to our patients.

Our witnesses here today provide a unique opportunity to learn how Congress can help to build a stronger primary care workforce that meets the needs of individuals across our Nation.

I thank the chair.

Senator SANDERS. Senator Burr, thank you very much.

Senator Warren.

STATEMENT OF SENATOR WARREN

Senator WARREN. Thank you, Mr. Chairman. Thank you, Ranking Member. Thank you for holding this hearing today.

We are here to talk about educating and training health care professionals, but before I get to my questions, I want to take a moment to publicly recognize the first responders, the doctors, the nurses, and everyone at our world-class hospitals for their heroic work in responding to the attacks in Boston on April 15, and for their ongoing work since this terrible tragedy.

I also want to commend all of the race volunteers, the bystanders, the marathon runners who set aside their own individual roles that day and became part of Boston's health care force.

We now have lost four people to this cowardly act of terrorism, but the courage, the strength, the perseverance of our entire health care workforce helped to ensure the survival of many individuals who, otherwise, would have perished in this attack.

So to every one of the doctors, the nurses, EMS, support teams, and volunteers who literally made the difference between life and death, I want to start this morning just by saying thank you, publicly.

Thank you, Mr. Chairman.

Senator SANDERS. Senator Murphy.

STATEMENT OF SENATOR MURPHY

Senator MURPHY. Thank you very much, Mr. Chairman.

And let me add my thanks to those of Senator Warren to the amazing acts of heroism performed by her constituents, and the lives that have been saved through a health care system that responded in ways that we hope that the health care systems respond to a tragedy like this. And Senator Warren, thank you for your leadership, for your State, and for your Nation on these last difficult days.

Mr. Chairman, thank you for having this hearing. As someone who spent my career in public health policy, there is nothing more important than talking about primary care.

I am very excited that on the second panel today, we will hear from a number of people who can talk to us about really great programs that are pushing more students into primary care, including my friend Bruce Koeppen from Quinnipiac University who, as he will tell you, has really focused their new medical school on the issue of primary care.

I guess what I hope that our panelists will talk about is not just what we can do within those schools to try to incentivize more students to go into primary care, but what we can do once they leave school because the fact is, is that we have two problems here. We

have one problem that involves schools not doing enough to incentivize students to look at primary care.

But second, the job just is not as attractive as it used to be. It does not pay as much relative to other professions, and that becomes a bigger and bigger problem as the cost of education goes up. And second, it is just not as interesting as the work once was as more of the cutting edge medical work is done in the specialties; there is less prestige than there used to be involved in primary care.

While I know our focus will mainly be on great programs that can get students into primary care, I think that we will hopefully acknowledge today that it is not just about the educational pathway. It is about really answering students' questions about the rate they are going to be paid if they choose primary care, and the kind of work that they are going to do. And if we solve for both problems, the pathway and then the job itself, then I think we will get to where we all want to get to.

Thank you, Mr. Chairman.

Senator SANDERS. OK. Now, let's hear from our first witness.

Rebecca, Becky Spitzgo is the Associate Administrator of HRSA's Bureau of Clinician Recruitment and Service, heading a staff of over 200 civilian and commissioned Corps personnel. She serves as the Director of the National Health Service Corps. Ms. Spitzgo has more than 30 years of Federal experience in grants management, system development, and project management with the Department of Health and Human Services and the Department of Education.

Thanks very much for being with us.

STATEMENT OF REBECCA SPITZGO, HRSA ASSOCIATE ADMINISTRATOR, BUREAU OF CLINICIAN RECRUITMENT AND SERVICE, AND DIRECTOR OF THE NATIONAL HEALTH SERVICE CORPS, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, ROCKVILLE, MD

Ms. SPITZGO. Thank you. Mr. Chairman, members of the committee.

Thank you for the opportunity to testify today on behalf of the Health Resources and Services Administration about the National Health Service Corps.

For over 40 years, the National Health Service Corps has helped to build healthy communities by supporting health care providers dedicated to working in areas of the United States with limited access to health care.

Thanks to historic investments from the Affordable Care Act and the Recovery Act, the number of clinicians in the National Health Service Corps is at all-time highs from 3,600 in 2008 to nearly 10,000 in 2012. Today, Corps clinicians are providing primary medical, dental, and mental health care to more than 10.4 million people who live in rural, urban, and frontier communities in all 50 States, the District of Columbia, Puerto Rico, and other U.S. territories.

The National Health Service Corps programs provide scholarships and repay educational loans for primary care physicians, dentists, nurse practitioners, physician assistants, behavioral health

providers, and other primary care providers who agree to practice in areas of the country that need them most.

I have talked with doctors who have said they would have never been able to go into medicine without the National Health Service Corps scholarship program because they could not, they simply could not afford the costs of medical school.

For most of the National Health Service Corps clinicians, we know it is not just about the money. We have found that more than 55 percent of the clinicians continue to practice in communities where they are needed most 10 years after they have completed their service commitment.

Dr. Abbott is one of these amazing clinicians. He received a National Health Service Corps scholarship and began his service commitment in July 1983. Today, nearly 30 years later, Dr. Abbott is still providing pediatric health care and was recently appointed the Chief Medical Officer for the Family Health Centers of Baltimore where he began his career.

Dr. Abbott is just one of many stories that underscores the return on investment of the National Health Service Corps, and how this program ensures that communities have access to quality health care both today and in the future.

There are currently more than 1,000 students and residents preparing to go into practice who are receiving support through the scholarship program. As part of the National Health Service Corps's commitment, these future care providers will serve in communities where they are needed most.

Approximately 45 percent of the 10,000 Corps clinicians are currently providing care in rural communities. To better meet the needs of rural and frontier communities, HRSA has expanded the Corps to include critical access hospitals and supports the growing use of telemedicine.

The National Health Service Corps scholarship and loan repayment programs remain highly competitive. In fiscal year 2012, the National Health Service Corps was able to fund 41 percent of the applications for new loan repayment, and 15 percent of the applications for scholarships.

At its heart, the National Health Service Corps is about bringing primary care to communities in need. The Corps is able to do this by removing financial barriers for clinicians and the next generation of clinicians who are interested in primary medical, dental, and mental health care.

Removing these barriers enables dedicated clinicians and students to pursue a fulfilling, mission-driven, community-based career.

Thank you, again, for providing me the opportunity to share HRSA's and the National Health Service Corps's mission with you today, and I am pleased to respond to your questions.

[The prepared statement of Ms. Spitzgo follows:]

PREPARED STATEMENT OF REBECCA SPITZGO

Mr. Chairman and members of the committee, thank you for the opportunity to testify today on behalf of the Health Resources and Services Administration (HRSA) about the National Health Service Corps programs. HRSA focuses on improving access to health care services for people who are uninsured, isolated or medically vulnerable. HRSA's mission is to improve health and achieve health equity through ac-

cess to quality services and a skilled health care workforce. There are approximately 80 different programs administered by HRSA.

One of these programs is the National Health Service Corps. For over 40 years, the National Health Service Corps has helped to build healthy communities by supporting qualified health care providers dedicated to working in areas of the United States with limited access to health care.

Thanks to historic investments from the Affordable Care Act and the Recovery Act, the numbers of clinicians in the National Health Service Corps are at all-time highs. The number of providers serving in the National Health Service Corps has nearly tripled from 3,600 in 2008 to nearly 10,000 in 2012, and they are providing care for millions more patients than the Corps was able to serve just 3 years ago.

The National Health Service Corps programs provide scholarships and repay educational loans for primary care physicians, dentists, nurse practitioners, physician assistants, behavioral health providers, residents and other primary care providers who agree to practice in areas of the country that need them most. Across this country, nearly 10,000 National Health Service Corps clinicians are providing care to more than 10.4 million people who live in rural, urban, and frontier communities.

Serving at National Health Service Corps approved sites that include local rural health clinics, community health centers, Tribal sites and other primary care sites, National Health Service Corps clinicians are working every day to not just treat illness or injury, but also to keep people healthy and prevent them from getting sick. They are providing check-ups for children, filling cavities, managing diabetes, providing mental health care, and monitoring chronic conditions for seniors.

Today, there are Corps clinicians providing primary medical, dental and mental health care in all 50 States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and other U.S. Territories. Physicians are the largest single discipline in the National Health Service Corps representing 26 percent of the nearly 10,000 Corps providers. And, National Health Service Corps mental and behavioral health care providers (Health Service Psychologists, Licensed Clinical Social Workers, Licensed Professional Counselors, Marriage and Family Therapists, and Psychiatric Nurse Specialists) have nearly quadrupled since 2008, increasing from approximately 700 to 2,800.

The full-time option under the National Health Service Corps Loan Repayment Program offers up to $60,000 in loan repayment for 2 years of full-time service. At the end of 2 years, Corps members can apply to continue their service and receive additional loan repayment. National Health Service Corps scholars commit to serve in the Corps upon completion of their training, providing 1 year of service for each year of support (with a minimum 2-year service obligation). The Students to Service Loan Repayment Pilot Program provides loan repayment assistance of up to $120,000 to medical students (Medical Doctor and Doctor of Osteopathic Medicine) in their last year of school, in return for a commitment to provide primary health care services in communities of greatest need for at least 3 years.

I have talked with doctors and nurses who say that they would never have been able to go into medicine or nursing without the National Health Service Corps Scholarship Program, because they and their families simply could not afford the cost of health professions training otherwise.

For most of our Corps clinicians, we know it is not just about the money. We have done the research and found that more than 55 percent of clinicians continue to practice in the communities that need them most 10 years after completing their service commitment. For example, Dr. Abbott is one of these amazing clinicians who has stayed long beyond his initial service commitment. Dr. Abbott was born in Brooklyn, NY, and attended Howard University College of Medicine. He completed his pediatric residency at Howard University Hospital and the District of Columbia Hospital. Dr. Abbott received a National Health Service Corps scholarship and began his service commitment at South Baltimore Family Health Center in July 1983. Nearly 30 years later, Dr. Abbott is still providing pediatric health services at this health center and was recently appointed to chief medical officer for the Family Health Centers of Baltimore. Dr. Abbott's story is just one of many stories that underscore the return on the investment of the National Health Service Corps and how this program helps ensure that communities have access to quality health care both today and in the future.

In addition to National Health Service Corps clinicians currently providing health care, the Corps also invests in the training of the next generation of providers through scholarships and the Students to Service Loan Repayment Pilot Program. There are currently more than 1,000 students and residents preparing to go into practice who are receiving support from these programs. As part of their National Health Service Corps' commitment, these future primary care providers will serve in communities where they are needed most.

The National Health Service Corps scholarship and loan repayment programs are highly competitive. In fiscal year 2012, with data as of September 30, 2012, the National Health Service Corps Loan Repayment Program received 5,715 new applications and funded 2,342 new awards, which represents 41 percent of submitted applications. In addition, there were 1,925 continuation contracts, extending service for another year. Taken with these continuation contracts, the Loan Repayment Program invested $169 million in the primary care workforce. The National Health Service Corps Scholarship Program received 1,373 new applications and funded 212 new awards, which represents 15 percent of submitted applications. Overall, the Scholarship Program issued 222 awards (212 new and 10 continuation contracts) totaling $42 million.

National Health Service Corps providers serve in National Health Service Corps approved sites, which are sites that meet defined criteria demonstrating their need and that expand access to care by providing services regardless of a patient's ability to pay. There are currently more than 14,000 approved National Health Service Corps sites, and site administrators regularly report that eligibility for the National Health Service Corps programs are a valuable recruitment tool for health care providers.

In 2012, HRSA launched the interactive National Health Service Corps Jobs Center to allow National Health Service Corps sites to post key information to recruit prospective job applicants, such as services offered, community information, photos, and site brochures, so the prospective applicant can learn not only about the specific site, but also about the community they will serve. The launching of the NHSC Jobs Center has significantly increased the number of prospective job applicants interested in positions in eligible communities. We are looking forward to providing all NHSC sites with robust recruitment opportunities with access to thousands of primary care providers through the Jobs Center.

With 45 percent of the nearly 10,000 Corps clinicians currently providing care in rural communities, HRSA has adapted to better meet the need for primary care providers in rural and frontier areas. For example, HRSA expanded eligibility for the National Health Service Corps sites to Critical Access Hospitals in fiscal year 2012. As of October 2012, 134 Critical Access Hospitals had been approved as National Health Service Corps service sites, and an additional 71 applications were under review as part of this initiative. Additionally, in fiscal year 2013, the National Health Service Corps began allowing providers practicing in eligible sites to offer telemedicine services to patients at distant sites. Designed to extend the reach of National Health Service Corps providers while minimizing patients' travel distances to seek care, this initiative has been particularly significant in increasing access to mental and behavioral health services in rural areas.

In addition to encouraging a geographically well-distributed primary care workforce, the National Health Service Corps supports a racially and ethnically diverse primary care workforce. According to the most recent self-reports by the nearly 10,000 Corps clinicians currently providing care—13 percent are African-American, 10 percent are Hispanic, 7 percent are Asian or Pacific Islander, and 2 percent are American Indian or Alaska Native. In fiscal year 2012, African-American physicians represented 17 percent of the Corps physicians, which exceeds their 6.3 percent representation within the national physician workforce. Hispanic physicians represented 16 percent of the Corps physicians, exceeding their 5.5 percent representation in the national physician workforce.

Also, according to these self-reports, more than half of the nearly 1,000 Corps scholars in the pipeline, currently in school or residency training, are racial and ethnic minorities—26 percent are Hispanic, 19 percent are African-American, 12 percent are Asian or Pacific Islander, and 2 percent are American Indian or Alaska Native.

At its heart, the National Health Service Corps is about bringing primary care to communities in need. The Corps is able to do this while making it possible for those with a passion and commitment to serve to pursue their dreams. The National Health Service Corps removes financial barriers for clinicians and students interested in practicing a primary care discipline, enabling them to pursue a fulfilling, mission-driven, community-based career.

Thank you again for providing me the opportunity to share HRSA's and the National Health Service Corps' mission with you today. I am pleased to respond to your questions.

Senator SANDERS. Thank you very much for your testimony, and thanks, again for being here.

Let me begin by asking you this. One of the reasons, in fact, I voted for the Affordable Care Act is that there were great, significant expansions in the Federally Qualified Health Center programs and in the National Health Service Corps. My understanding is that you are now providing some help, financial support, to about 10,000 clinicians, three times more than you did in 2008.

Is that correct?

Ms. SPITZGO. That is correct, yes.

Senator SANDERS. So we have seen some significant expansions, but clearly that is not enough. The average medical school student, as I understand it, graduates school with about $160,000 in debt.

Is that roughly right?

Mr. SPITZGO. That seems to be what we see coming across in our applications. Yes.

Senator SANDERS. Based on your extensive experience with the program, if you had your druthers, what kind of support would you need to make sure that we can move more aggressively in terms of helping those students who want to practice primary care in the underserved areas?

What kind of budget would you need?

Ms. SPITZGO. As you know, Senator Sanders, HRSA will take whatever dollars we are given and put them to our best use, and try to make them go as far as we possibly can.

Our average award amount for a loan repayment is about $52,000 right now. The average scholarship is about $200,000. We do have a new program that we recently started, the Student to Service Loan Repayment Program, which is about $120,000 and this actually goes to clinicians in their fourth year of training.

Senator SANDERS. No, I am asking you what the need is out there. The function of this hearing today is to try to figure out how we address a major crisis. Part of the solution will be programs like the National Health Service Corps.

If we want to get more young people into primary health care in underserved areas, clearly, we need to expand the program. Can you give us some ideas about that?

Ms. SPITZGO. I think we can look at the number of applications that we are not able to fund. We get about 5,700 applications a year almost consistently for the last 3 to 4 years. This year we will fund about 2,000 of those loan repayment awards, that is where your average amount is about $52,000 for a loan repayment award.

Senator SANDERS. You are funding significantly less than half of the applicants.

Ms. SPITZGO. Yes. Yes, sir. And then for scholarships, we will get about 1,300 applications, and we will fund about 200 of those.

Senator SANDERS. All right.

Ms. SPITZGO. So there is——

Senator SANDERS. So what you are telling us is that the need is out there.

Ms. SPITZGO. Yes.

Senator SANDERS. There are a lot more young people who would like that support, and if they got that, that is what would be in the primary care business.

Ms. SPITZGO. Yes.

Senator SANDERS. OK. Let me ask you this. One of the concerns that we have in States like Vermont is you are basing your funding on needs in communities around the country.

In Vermont right now, my understanding is we have many, many needs, but apparently they are less than other parts of the country. We may, in fact, be getting no National Health Service Corps money. That is true in other States as well.

What do we do to make sure that we continue to have a 50-State program where all States get at least some funding?

Ms. SPITZGO. I think right now, the way the program works and our statute is written is to look at the program from a national approach, which is using our health professional shortage area scores, and we look across the Nation and that is the funding preference that we provide as we go down those orders.

Needs within States, all States, I think, have significant needs that they are not able to fill or attract clinicians. But when we look at it from across the Nation, those do not necessarily find themselves within the 50 States; we find different levels of need. So as we fund down the order of the applications we receive, we do that until we run out of funding and are not necessarily looking at a State distribution.

The other option that we do have through our program is the State loan repayment program that allows States to come in and provide a matching, to meet very specific State needs, which is different, similar but a bit different than the national.

Senator SANDERS. But Ms. Spitzgo, am I correct in assuming that unless we increase funding, there will be a number of States in this country which have needs, significant need, but will not be receiving National Health Service Corps dollars?

Ms. SPITZGO. That is probably correct. We do not know each year how far we are able to go down the HPSA. Last year, we went into a Health Professional Shortage Area score of 13.

Senator SANDERS. And let me ask you this, as a result of actions taken a few years ago, you are looking at a cliff coming soon, a financial cliff?

Ms. SPITZGO. Our cliff right now for continuations, this year, will fund approximately 2,600 continuations. That is the most we have ever had to fund and that is the result of 2011; we made almost 4,500 new awards. We fund our continuations first, and then we use the remaining funds to fund new awards.

Our current funding goes through fiscal year 2015 with the Affordable Care Act.

Senator SANDERS. What happens if we don't do something about it? What happens in 2016?

Ms. SPITZGO. If we don't do something about that, if we don't have an annual appropriation, then the program would not be able to continue, obviously, without funding.

Senator SANDERS. OK.

Senator Burr.

Senator BURR. Thank you, Mr. Chairman.

Ms. Spitzgo, your testimony notes that there are approximately 80 different programs administered by HRSA.

How many of HRSA's programs are Work Force programs?

Ms. SPITZGO. How many? I would be glad to get you the exact number.

I have within my organization, I have six of those programs, and we have a Health Professional Bureau, a Bureau of Health Professions that administer programs that go to schools and organizations as opposed to individuals, and we will be glad to get you what that number is.

Senator BURR. To your knowledge, has HRSA done any type of a review to see if there is duplication of Work Force programs within HRSA?

Ms. SPITZGO. Yes, we have significantly spent time talking about, "Is there overlap and is there duplication?" and trying to minimize that. As well as working very hard to leverage our programs and make sure that they are working together.

Senator BURR. I am going to ask you, if you will, to provide for the committee, the comprehensive list of those Work Force programs and their stated objectives, if you will.

Ms. SPITZGO. Be glad to.

Senator BURR. Your testimony also notes that a number of providers serving in the National Health Service Corps has nearly tripled from 3,600 in 2008 to 10,000 in 2012.

Since the change in law to provide for waiver of full-time requirements, what percentage of the providers in the National Health Service Corps is serving in a part-time capacity?

Ms. SPITZGO. About 10 percent of our workforce comes in for part-time, and of that, about two-thirds of those do 2-year agreements with us, and one-third does a 4-year agreement. So the 2-year commitment seems to be the preference.

Senator BURR. What is the attrition rate for individuals that commit to service through one of the National Health Service Corps programs but do not fulfill the full term of that agreement?

Ms. SPITZGO. Currently, the loan repayment program has a default rate that is less than 1 percent, and we have about a 3 percent default rate with our scholarship program.

Senator BURR. OK. The National Health Service Corps Web site highlights short- and long-terms retention rates for the Corps noting an increase of 28 percent in the short-term retention rate and an increase of 6 percent in the long term retention rate, and this is 2000 to 2012.

Ms. SPITZGO. Yes.

Senator BURR. Is there any difference in these retention rates for full- and part-time clinicians?

Ms. SPITZGO. At this point, we don't know. The first time we offered a part-time was in 2010, so the current retention study would not have taken that into account at all, the part-time option that we have now. So that would be something we would be able to start taking a look at.

We do an annual survey of our clinicians and capture short-term retention data, as well as the 10-year, long term. So we will shortly have some data on that.

Senator BURR. What is the average length of retention after a clinician fulfills their initial service contract?

Ms. SPITZGO. The average length? I am going to have to—we look at the short term. We have about 80, over 82 percent, so 4 out of

5 folks continue to work in underserved communities after they complete their commitment, and obviously then as you go further out, we looked at that short term and we looked at the long term.

I would have to go back to the report to see if we can get you what the average is. My guess would be 2 to 3 years, at least, but we will be glad to get you——

Senator BURR. Provide that for us, if you would.

Ms. SPITZGO. Yes.

Senator BURR. Your testimony states that HRSA has done research and found that more than 55 percent of clinicians continue to practice in the communities that need them the most 10 years after completing their service commitment.

Does your research show that these clinicians continue to practice in communities in which they fulfilled their service, or in other communities with health professional shortages?

Ms. SPITZGO. That is for working in community with health professional shortages. So they are all within in a HPSA, and some of those would be still within the community where they did their service. Others do certainly change and move to work in other shortage areas.

Senator BURR. Could I ask you to share with the committee the research and do it as a followup to today's hearing?

Ms. SPITZGO. Be glad to.

Senator BURR. Thank you Mr. Chairman.

Senator SANDERS. Thank you, Senator Burr.

Senator Warren.

Senator WARREN. Thank you, Mr. Chairman.

And thank you, Ms. Spitzgo for updating us on the work of the National Health Service Corps, and what you are doing to provide access to primary care in underserved communities. And I want to thank you for all the work you are doing to help educate the next generation of health care professionals.

Equal access to health care and primary care, regardless of where you live, whether it is a rural community, a suburban community, or in an urban center is essential to assuring that Americans have an equal opportunity to full and healthy lives.

And I recognize that equal access means that we have to have a strong workforce that is trained to practice in our evolving health care system, a system that is becoming more integrated, and more coordinated over time.

I am proud to support the Medicare GME-funded residency programs at hospitals around the country, and especially our world-class hospitals in Massachusetts. But I recognize that we also need strong support for other Federal workforce development programs, including the Corps.

Across the board, these programs are dramatically underfunded, and they can have stringent eligibility requirements that leave many extraordinary programs without adequate funding.

Now, people talk a lot about rising health care costs and how concerned they are about those costs.

Can you explain how access to primary care reduces the overall cost of health care for individuals who are able to see a provider before they develop expensive complications?

Ms. SPITZGO. Yes. I think what we see, and often read about, is that getting care as soon as you have symptoms, and not letting them progress further into the point where you need a much more serious treatment or a much more series of treatment really is very much less expensive.

You can go and get on a routine whether it is—you look at diabetes. If you catch that early, you can get some training on lifestyle adjustments, and you can learn how to manage it, and potentially never even end up on medication. As opposed to if it goes unchecked, and you are very far and much further down the path of complications with diabetes, then you are going to be on medications. You may be having problems, vision problems, you may have issues with your feet. I have seen my brother go through this who went through it unchecked.

So the costs you are incurring, and the medical tests and the routine, whether it is vision or it is being hospitalized to deal with some of these issues, or the medications themselves, certainly greatly add to the cost of care.

Senator WARREN. So it is fair to say that early care, primary care, integrated care may reduce the overall cost of health care in the system.

Is that fair?

Ms. SPITZGO. Yes, I think that is fair and——

Senator WARREN. Good.

So the question I want to ask you, then, is if we doubled the support for the National Health Service Corps, what impact would that have on overall quality of health for Americans and on costs to the health care system?

Ms. SPITZGO. I think the cost, I cannot give you a number right off, but I think what we can see from a quality perspective and just access, being able to have people available.

We often heard from our sites that it is difficult for folks to get appointments; there are long waiting times to get an appointment, their ability just to find the providers. Often when a physician leaves, they may be 12 or 18 months recruiting a new physician. So not having someone there, obviously, someone else is taking up that slack because you still have patients to care for even once you have lost providers.

By being able to recruit and using the National Health Service Corps as a huge recruitment tool, we hear this from our sites all the time. They say, "I don't know what I would do without the National Health Service Corps. That is what brings me providers." And the more providers they can get as we place our scholars, they say, "Give me more physicians. I can use as many physicians as you can give me." All of those things allow them to serve patients more.

We have quality, significant quality of care being provided by our community health centers, and about 50 percent of our clinicians work in those community health centers. So we know that many more would also land in community health centers if we had more providers that we could support.

Senator WARREN. Thank you very much.

Every time someone talks about the rising cost of health care, I hope they will stop to remember that we have paths open to us to

reduce the costs of health care. We know how to get better outcomes at lower costs, but to do that, we have to make sensible, up front investments.

In this case, investing in the medical education of our health care workforce can give us all a great return. We can get better outcomes at lower costs. So I just want to say thank you very much. I want to express my support.

And to say, Mr. Chairman, I apologize. There is a banking hearing going on at exactly the same time, so I am going to have to miss this second panel.

Thank you.

Senator SANDERS. OK. Thank you very much, Senator Warren.

Senator Roberts.

STATEMENT OF SENATOR ROBERTS

Senator ROBERTS. Before Senator Warren leaves, let me associate myself with her remarks. And thank you.

Mr. Chairman, thank you for your leadership on these workforce issues. Thank you for holding this hearing.

Ms. Spitzgo, thank you for your work you are doing. Stay in there.

Ms. SPITZGO. OK.

Senator ROBERTS. We will do the best we can.

This has always been a particular interest of mine and a focus. In Kansas, we have 105 counties and in many of those counties, we don't have any health care professionals: no pharmacists, no nurses, no doctors, certainly no doctors, no dentists. So you have to travel in some cases, 100 miles, and then you see a nurse practitioner, and then we have the regional centers but sometimes that is a long, long ways away too.

In Title VII, and Title VIII of the Public Health Service Act, we have done some really good work to address these issues, and I thank you for that. You have my support for these programs.

But with all of the successes that we have, we still have Kansans who are traveling hours to access care, and are also simply unable to find a health professional in their area.

I am concerned about the Affordable Health Care Act from one aspect—well, I am concerned about it in general but—one aspect especially. It proposes a way to get more patients and families access to care, but we have 7 million people, at least, that we were supposed to bring into the new Affordable Care Act programs.

We just had a big discussion in the Finance Committee on who is a navigator. Who is going to help these people? There are 21 pages that you have to fill out to apply and 61 pages to supplement. I even tried wading through all of that, so we are going to have to have some pretty expert navigators to make this work.

But there is a growing concern that there won't be enough providers on hand to treat and care for the patients, even if they gain access to coverage.

What do you think about that? What is your general view on that challenge?

Ms. SPITZGO. I think we continue to look for new ways to deliver care, whether we are doing team-based care. There are many new and innovative ways to do that. And we really do need to take

some different looks at how to provide care to ensure that everyone who is seeking care is able to get an appointment and be seen in a reasonable amount of time.

Senator ROBERTS. I would like to visit with you sometime about these new ways and get into the specifics.

I am concerned, too, because we have programs in Kansas where we have seen some success, and it largely involves students who go to medical school in Kansas, especially the University of Kansas, and then they return to their rural roots. There is a lot of positive feelings, toward, we call it sort of the homegrown approach. I would like to see if these new innovative ways could build off of those programs. In other words, we could reinvent some wheels, but let's not forget the wheels that are working.

At any rate, I was interested in your response to Senator Burr that you have indicated that folks will stay 10 years if we can get them interested in going to school, come back to their hometowns for their home areas. That has not been my experience and I am just saying it on an anecdotal basis.

I used to be a bucket-toter around here, a staff member, both in the Senate and the House. One of my duties was to be a recruiter, and we would hear of somebody that might be a doctor that would come to a special program, or working with immigration, or working with a refugee program, or whatever. And we really would go out and recruit, and we had to recruit against Nebraska and Oklahoma. It was like football or something.

I would get on the phone to a young man or woman and encourage them to come to Kansas, and that they would be welcomed, and the whole community, however small it was, would welcome them.

Sometimes we would be successful, and they were most welcomed and I think they enjoyed their stay; 3 years and gone. And I think about primarily folks from Asia, from India, and from Africa. It worked for a while, but in 3 years that is very different from the homegrown approach that I am talking about as well.

Now, you have indicated that, yes, it is 10 years, but it is 10 years in a workforce area or a rural area as opposed to that first hometown. I would sure like to get folks to stay in an area for 10 years. That would be wonderful if we could do that in many rural areas of Kansas.

Would you like to comment on that?

Ms. SPITZGO. Yes, I think we would like to see that same thing very much, and we work really hard with our placements as we work with clinicians, our scholars so that they find that good fit. Because we found from our research, if we can make that match, and they go, and they start that first job somewhere where they really want to be. It is a good fit for them; it is a good fit for the community.

If they have a family, often our sites will say, "I really need to recruit the husband or wife more than I need to recruit the clinician."

Senator ROBERTS. Right.

Ms. SPITZGO. "They will work anywhere." But the families have to be happy. We have to take all those needs into account.

One of the things we did in the last year is launch our National Health Service Corps Job Center out on the Internet. And not only does it list vacancies, but it really tells the stories about our sites.

"What is it like to work at this site? Here are some pictures. Here is what kind of populations it serves. Here are the types of languages it speaks, the size that it is. Here is what is available in the area." So that it really helps folks as they are looking for a job to find that job which will be not for a year or two, which will be for a long-term placement. And hopefully, we will retain them and they will stay there for at least 10 years.

Senator ROBERTS. I thank you for your response.

Thank you, Mr. Chairman.

Senator SANDERS. Senator Murphy.

Senator MURPHY. Thank you very much, Mr. Chairman.

Ms. Spitzgo, thank you so much for your fantastic work and for all of your office's fantastic work.

I just wanted to get the numbers right here. The commitment is for 2 years.

Ms. SPITZGO. For loan repayment.

Senator MURPHY. For loan repayment, and the maximum loan repayment is for?

Ms. SPITZGO. As long as they continue to have qualifying educational debt, they can continue in the program. And after that, it is a 1 year renewal, and they can continue on until their debt is paid.

Senator MURPHY. I wanted to follow along the same line of questions as Senator Roberts and Senator Burr, which is, questions about how we can get a bigger bang for our buck because I appreciate the fact that about half the people are staying there after 10 years. But that means that half the people are not staying there for after 10 years. And it is a pretty substantial investment to perhaps get somebody to stick around for only 2 or 3 years.

The question is: how can we make the amount of money we are spending here go further? Are we sure we have the commitment timeframe right? Given the fact that we have twice as many applicants on the loan repayment side as we have slots to fill, does that suggest that we could actually increase the amount of time that we are asking someone to commit to these areas, and you wouldn't necessarily have fewer applicants than you have slots?

Have we talked about expanding the commitment time?

Ms. SPITZGO. We do continue to look at that each year.

For our new program, our Student to Service Loan Repayment Program, which is just in its second year, that is a 3-year commitment. It is kind of in between a regular loan repayment where they have already finished school and are licensed and these folks are in their last year of training is the qualification for that and educational debt, where our scholarship program is 2 to 4 years, so some of those folks have a 4-year commitment. We do continue to look at that.

We also have the part-time program where we have seen much less interest in a 4-year part-time than a 2-year part-time. And what we know from monitoring and working with our clinicians, once they are in service is that life does happen. Things change. Maybe they need to move to a new area and there might not be

a National Health Service Corps site there. If they have care issues for their parents or they need something different for their children.

We do continue to look at that whether 2 years or 3 years might be—2 years is what is in our statute, and we follow that, and then we do the 1 year increments after that.

But we do continue to also look at the amounts of loan repayment to figure out, How do we make that money go further? And we have adjusted those amounts over the course of the last couple of years.

Senator MURPHY. We in Connecticut had a crisis with respect to access to pediatric dentistry, not unlike other States, and we had two ways to go.

One we could try to directly attract more people into that field through loan repayment or through direct grants to people who committed to stick around. Or, we could just increase rates and hope that the market, then, would respond to the fact that we were going to pay more on a fee-for-service basis for the service provided.

We increased rates and almost overnight, the market responded. And we had an influx of pediatric dentistry to the extent that we have largely solved the access problem in Connecticut.

As someone who works in this field, we have a bucket of money to spend, and in this case, we are spending it on direct subsidies to physicians, or doctors, or health professionals to get them to come to underserved areas.

Another way to do it is to take that amount of money that we have and use it to increase the rates that are being paid in those underserved areas to all physicians. So as to make it clear that if you come to this area, regardless of whether you are a member of Job Corps or not, you are a member of the Service Corps or not, you are going to be rewarded for practicing in an underserved area.

What is your perspective on how we should approach whether it is better to direct money specifically to individuals who are going to make a potentially short-term time commitment to that area? Or, whether we would be better served to take money and put it into overall rate increases to anyone who goes to that area and hopefully have the market respond to the differentiation we have made in rates paid in underserved areas versus non-underserved areas?

Ms. SPITZGO. I think right now, we actually have the bonus payment that is provided by the Center for Medicare and Medicaid for underserved areas. So we are doing some of that direct payment to folks who do work in those areas already.

Senator MURPHY. So you are talking with the physicians here.

Does that make a difference?

Ms. SPITZGO. I think I would have to go to see what the data is that CMS has on that. I am not familiar. I just know that there is that program to help attract, but we still know, even with that 10 percent bonus payment, we still have significant shortages in these areas.

We also know, and I think another thing we wrestle with on retention is, what is the benchmark? How long is it typical for any type of physician to retain employees? And people move around frequently, and we continue to look for that benchmark. So someone

staying there 55 percent for 10 years or staying their 2-year commitment or maybe their 3- or 4-year commitment. We do not actually start counting retention until they are no longer receiving funding from the program.

We are not incentivizing them to stay any longer, unlike some of the programs where we talk about retention from a military perspective where we are giving retention bonuses. We actually have finished providing all financial support.

I think what we see are these people do stay in underserved communities. They are there and they are very mission-driven. Some may make choices to maybe not be providing direct care and they may go into other lines of work that still support underserved communities, but they would not necessarily be counted in the retention numbers.

In general, the folks we see in the program and that come there very much stay in the program. They benefit greatly. They are not necessarily, they said they would not be able to have gone to underserved and work in that environment without the financial support.

I do not know if increasing the rates would directly get to the clinicians. I do believe most of our clinicians are paid a competitive rate for that area. Whether that would get passed on to them through their employer and who they work for, an increase? I think that would vary across the board how that might be implemented.

Senator SANDERS. Thank you. Ms. Spitzgo, thank you very much. Keep up the great work, and we have another panel to follow.

Ms. SPITZGO. OK. Thank you.

Senator SANDERS. OK, if our second panel could please come to the table.

[Pause.]

Let me thank all of our panelists for being here today. It is an exceptionally good panel and I look forward to hearing the testimony. Let's begin.

Dr. George Rust. Dr. Rust is a professor of family medicine and co-director of the National Center for Primary Care at Morehouse School of Medicine. Before that, he served 6 years as Medical Director for the West Orange Farm Workers Health Association in Central Florida. He is board certified in both family practice and preventative medicine. Dr. Rust is the author of over 70-peer reviewed publications related to primary care, health disparities, and underserved populations. His career as a family physician and scholar has consistently focused on primary health care for those in greatest need.

Dr. Rust, thanks so much for being with us.

STATEMENT OF GEORGE S. RUST, M.D., MPH, FAAFP, FACPM, PROFESSOR OF FAMILY MEDICINE AT THE MOREHOUSE SCHOOL OF MEDICINE AND CO-DIRECTOR OF THE NATIONAL CENTER FOR PRIMARY CARE, ATLANTA, GA

Dr. RUST. Chairman Sanders, thank you for your leadership and for the committee's leadership as well, Ranking Member Burr and Senator Murphy. Thank you so much for allowing me to be here today.

I am Dr. George Rust and I am a professor of family medicine at the National Center for Primary Care at Morehouse School of Medicine. I am also a family physician who trained in the inner city, practiced in a rural small town, and now teach and do community health outcomes research at an historically Black medical school. I learned to do team-based primary care for culturally diverse patients in the Cook County Hospital Family Medicine Residency Program, which was funded by HRSA primary care residency training grants. Their neighborhood clinics were early models of the teaching community health center, again, funded by HRSA CHC funding. And I am a veteran of the National Health Service Corps, which helped sustain my commitment to practice primary care in a community that really needed me.

Early in my career, I saw firsthand the powerful impact of comprehensive, culturally relevant, team-based primary care offered and migrant and community health centers where I practiced. Since then, our research has confirmed that there is a 33 percent higher rate of uninsured emergency department visits in rural counties that do not have a community health center.

Now, the nationwide cost of uninsured emergency room visits for ambulatory care, sensitive conditions is $65 billion. Community health centers not only provide emergency department diversion, but emergency department prevention. Patients survive, and rural hospitals can thrive when they do not have that burden of indigent care.

The same is true in urban areas. Over half of visits to an urban public hospital's emergency department are for primary care-treatable or preventable conditions. Research by Dr. Starfield and others has shown that the more primary care clinicians a community has, the better people's health outcomes are, and the most cost-effective the health care system is. Primary care matters.

Now, for the past 21 years, I have been blessed to teach and research primary care and community health at the Morehouse School of Medicine, which was recently ranked No. 1 in the Nation for achieving a social mission based on our track record of producing the doctors that America really needs. Doctors that practice primary care, that serve in underserved rural and inner city communities, and who reflect the diversity of the American people.

How do we do it? First, we work hard to find the right students. Students with reality tested idealism, a track record of community service, and a commitment to making a difference in the world. We train students from the first day in the community as well as the classroom, and we nurture that commitment to serve.

We teach teamwork and people skills needed for students to deliver humane and effective care. And we nurture and value our primary care faculty, and we practice what we teach in the patient-centered primary care medical home.

Unfortunately, we are swimming upstream against huge obstacles and financial disincentives. The HRSA-funded primary care training grants have been cut to the bone and they cap our overhead costs at 8 percent, which our dean compares to research grants with indirect cost rates of 40 to 50 percent. So the incentive is to expand lab research, not to expand primary care training programs.

Subspecialty faculty generates more clinical revenues than primary care faculty. So which should our School hire more of?

Graduate medical education support comes through hospital-based Medicare IME and DME funding. So where is the support for community based residency education that keeps people out of the hospital?

It takes a moral commitment for us to train primary care physicians for underserved areas because every decision we make to do the right thing flies directly in the face of the financial incentives built-in to the largest sources of medical education funding.

So based on my experience and on the research and skipping past the obvious payment reform issues, let me offer three small suggestions.

First, reconnect academic centers with community based practice starting with sustainable, direct, long-term funding for a large number of teaching community health centers.

Second, we must increase dramatically the funding for title VII and title VIII support for primary care health professions training. These are solid investments in the primary care workforce.

And third, unlink graduate medical education from hospital-based specialty care unless you want to keep producing absurd proportions of subspecialists and hospitalists. Instead, let's create direct, sustainable funding for community based, outpatient residency programs that train doctors to keep people out of the hospital.

We need your help. Morehouse School of Medicine and others have taken heroic risks to stay on mission, sometimes risking our own sustainability. Enough with the heroics; let's support primary care and let's reap the benefits in lower health care spending, more appropriate care, and better health outcomes for all Americans.

Thank you very much.

[The prepared statement of Dr. Rust follows:]

PREPARED STATEMENT OF GEORGE S. RUST, M.D., MPH, FAAFP, FACPM

Good morning, Ranking Member Burr and Chairman Sanders, and members of the subcommittee. My name is Dr. George Rust, and I am a Professor of Family Medicine and Co-Director of the National Center for Primary Care at Morehouse School of Medicine.

My testimony will focus on the importance of primary care in assuring the Nation's health, the benefits of supporting a robust primary care capacity (especially in underserved communities), and the ways in which we can support medical schools to produce the primary care physicians that America needs.

Why is primary care so important? Published studies have demonstrated the positive impact of primary care on a variety of health outcomes, including decreased mortality (death rates) from cancer, heart disease, stroke, and all-causes combined. Primary care clinician capacity is also associated with fewer low birth weight births, increased life expectancy, and improved self-rated health. The dose of primary care can even be measured—an increase of one primary care physician per 10,000 population was associated with an average mortality reduction of 5.3 percent, or 49 per 100,000 per year.[1]

Primary care is where you go for your flu shots and blood pressure treatment, and where your kids go for school physicals and immunizations, but it's also where you go to say "*Doc, I just don't feel right. Something's wrong*." Research by Dr. Barbara Starfield and others has shown for decades that the more primary care a community has, the better people's health outcomes are, and the more cost-effective the healthcare system is. In other words, **primary care matters!**

[1] Macinko J, Starfield B, Shi L. Quantifying the health benefits of primary care physician supply in the United States. *Int J Health Serv*. 2007;37(1):111–26.

A June 2009 article in the *Journal of the American Medical Association* opens with this statement: "*Primary care is the essential foundation for an effective, efficient, and equitable health care system*." [2]

Think of the **successes we have achieved as a nation in improving America's health.** Death rates due to heart attack and stroke have declined by more than 50 percent. Public health outreach and screening campaigns related to blood pressure as "the silent killer" were clearly a part of the success story, but only when coupled with the routine screening and treatment of high blood pressure all day long in primary care practices all across the country. Cervical cancer death rates have declined by more than 75 percent, a success attributable in large part to nurse practitioners and nurse midwives and physician assistants and doctors in primary care practices doing Pap smears and finding pre-cancers that can be eliminated even before cancer takes hold.

In our own research at the National Center for Primary Care, we analyzed *all* the major successes in America's health over the last half-century. Among all the leading causes of death from 1950 to 2000, we found nine major causes of death that showed at least a 50 percent reduction in death rates from their 50-year peak level. Seven of those nine conditions demonstrated a pattern that we called **triangulating on success** [3]—three major components, including **research innovation** distributed through both medical care (especially **primary care**) **and public health.** Similar outcomes were achieved by our Nation triangulating on success for heart attack and stroke, for cervical cancer, for TB and syphilis, for influenza and pneumonia, and for HIV/AIDS.

We have also studied how primary care can prevent unnecessary use of the emergency department. Using data from the National Health Interview Survey, we showed that people who experience simple barriers in timely access to primary care, such as difficulty getting through on the telephone or getting an appointment during an acute illness, were significantly more likely to have an emergency room visit.[4] **The emergency room becomes the safety valve when primary care access or capacity is inadequate.**

This is even more important for underserved segments of the population, which benefit most from access to primary care, especially the kind of primary care offered by community health centers—comprehensive, community-owned, culturally relevant, team-based care. We compared rural counties in Georgia that had a community health center clinic site with those that did not, and found that there was a 33 percent higher rate of **uninsured** emergency department visit rates in counties without a community health center. Some of this could be considered emergency department diversion—acute illness events or injuries treated in the community health center rather than the emergency department. But some of the difference also represented **emergency department prevention, not diversion.** ED visit rates for ambulatory care sensitive conditions (including chronic conditions such as asthma, hypertension, and diabetes) showed a 37 percent excess in communities with no CHC.

This not only benefits the uninsured clients who are getting more of the right care in the right setting at the right time, but also benefits the community hospitals which reduce their indigent care costs, which could mean the difference between a rural hospital thriving or closing its doors. Using HCUP data from the Agency for Healthcare Research and Quality (AHRQ), we can estimate hospital charges due to uninsured hospitalizations across the Nation to be $64.8 billion per year. Reducing this by a third in every community across the country which does not have a community health center or has inadequate primary care capacity, could potentially save tens of billions of dollars per year. **Primary care matters!**

The same is true in urban areas.[5] Over half of visits to an urban public hospital's emergency department are for primary care treatable or primary care preventable conditions. In other words, **a primary care health home helps assure that each patient gets the right care in the right setting at the right time.** Instead of

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[2] Grumbach K, Mold JW. A health care cooperative extension service: transforming primary care and community health. *JAMA* 2009; 301(24): 2589–90.

[3] Rust G, Satcher D, Fryer GE, Levine RS, Blumenthal DS. Triangulating on success: innovation, public health, medical care, and cause-specific U.S. mortality rates over a half century (1950–2000). Am J Public Health. 2010 Apr 1;100 Suppl 1:S95–104. doi: 10.2105/AJPH.2009.164350. Epub 2010 Feb 10.

[4] Rust G, Ye J, Baltrus P, Daniels E, Adesunloye B, Fryer GE. Practical barriers to timely primary care access: impact on adult use of emergency department services. Arch Intern Med. 2008 Aug 11;168(15):1705–10. doi:10.1001/archinte.168.15.1705.

[5] Rust G, Baltrus P, Ye J, Daniels E, Quarshie A, Boumbulian P, Strothers H. Presence of a community health center and uninsured emergency department visit rates in rural counties. *J Rural Health*. 2009 Winter;25(1):8–16.

treating a stroke in the ICU, we can treat high blood pressure right in the patient's own neighborhood. This primary care must be team-based care to achieve better outcomes for the whole patient. This includes re-connecting the head & the heart, by integrating mental health / behavioral health and primary care. Several years ago, our Morehouse School of Medicine National Center for Primary Care sponsored a summit of best-practice champions at the request of over a dozen Federal agencies, in order to bring this model to wide-spread adoption, which is now happening all across the country. Community-Oriented Primary Care (COPC) combines the one-on-one caring for patients in a primary care clinical practice with the larger perspective of improving overall community health outcomes.

I had the privilege of working as a family physician of a HRSA-funded, community-owned migrant and community health center for 6 years in Central Florida early in my career. My career commitment to primary care in an underserved setting was nurtured and protected by a National Health Service Corps scholarship, and sustained by section 329/330 health center funding. As medical director, I dealt with incredible challenges in recruiting and retaining clinicians to meet the community's needs when the Corps was de-funded in the 1980s, and so I am thrilled to see a revitalization of the National Health Service Corps, with a new flexibility in recruiting and a stronger commitment to retention.

This primary care workforce is essential, and we must connect them with the communities where they are needed most. I was blessed to receive my residency training in Chicago's Cook County Hospital family medicine residency training program, which helped me to become an expert in primary care for the underserved and for culturally diverse populations. That program was supported by HRSA primary care residency training grants as well as primary care faculty development grants. They nurtured my idealism and fine-tuned my clinical skills in one of the earliest and best examples of **a teaching community health center.** My residency primary care continuity clinic experience was delivered in a federally funded community health center that served a culturally diverse, high-volume, low-income patient population. I was fortunate to train in a setting where primary care was a team sport, delivered in partnership with physician assistants and nurse practitioners and pharmacists and social workers and psychologists.

For the past 21 years, I have had the privilege to teach and research primary care and community health at **the Morehouse School of Medicine, which was recently ranked #1 in the Nation in social mission, based on our track record of producing the doctors that America really needs**—doctors that practice primary care, doctors that serve in underserved rural and inner city communities, and doctors that better represent the diversity of the American people.

Training primary care clinicians is broader than just training physicians, but medical schools are an expensive and essential component, so for the moment let me focus on what it takes for Morehouse School of Medicine and other institutions to be medical schools that excel in training the doctors America actually needs. **How do we do it?** On the positive side, we work hard to find the right students in the admissions process—students with reality-tested idealism, a track record of community service, and a commitment to making a difference in the world. We train students from day one in the community as well as in the classroom, and we nurture their commitment to serve and to make a difference. We have state-of-the-art clinical training labs with actors as standardized patients to assure that students have both the clinical skills and people skills to deliver humane and effective care. We nurture and value our primary care faculty, cultivate partnerships with local community health centers in our neighborhoods, and we work together to build excellence in models of the patient-centered primary care medical home.

At the same time, our medical school is swimming upstream against incredible obstacles and financial incentives which lead most medical schools to run away from such a mission. Morehouse School of Medicine relies heavily on HRSA-funded primary care and diversity training grants, which have experienced significant cuts. Our training grants provide 8 percent indirect overhead cost rates, while NIH research grants offer indirect cost rates of 40–50 percent—so the financial incentive is to expand investigator-initiated research, not to expand primary care training programs. Sub-specialist faculty can generate dramatically higher clinical revenues than primary care faculty—so which should our school hire more of? Graduate medical education support comes through hospital-based Medicare IME/DME payments—so where is the support for community-based residency education that keeps people out of the hospital? Is it any surprise that only one out of third-year internal medicine residents plan to practice as general internists after graduation? The rest will choose to pursue sub-specialty fellowships in specialties that are already oversubscribed, or if they remain generalists, to do hospitalist medicine, rather than outpatient primary care? It takes a moral commitment for a medical school to train pri-

mary care physicians for underserved areas, because every decision to do the right thing flies directly in the face of the financial incentives built into the largest sources of medical education funding. **Do we choose mission over margin? Do we risk the very survival of our own institution in order to keep our commitment to train primary care clinicians for communities in need? Is that a choice America wants us to have to make?**

It is not by accident that the top 10 schools for research funding are not in the top 10 for training diverse students to become primary care physicians serving communities in need. Medical school research and medical school training has too often become disconnected from the real world community-based primary care clinical practice, and disconnected from training the doctors we most need for the communities where they are most needed. Our research must translate into real results—so we need more primary care and patient-centered research. To quote Dr. Larry Green, "if we want more evidence-based practice, we must generate more practice-based evidence." Translational research, whether funded by NCATS or other institutes, must find a more even balance between bench-to-bedside T1 translation and the T2 real-world implementation research that moves innovation out to curbside and countryside, where the free-range humans live.

Ultimately we need to re-balance our professional compensation scales so that there is not a **"half-the-pay for twice the work"** penalty associated with being a primary care physician. We need to reward patient care and community health outcomes more than we reward cranking out high-volume visits and procedures, so that primary care is not hamster-wheel medicine (running from exam room to exam room all day to achieve 30–40 visits), but rather is practiced in a humane, caring, and effective manner to achieve optimal care and outcomes for all our patients.

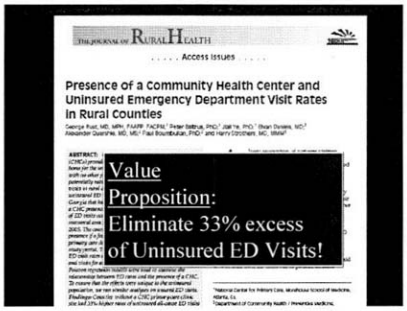
We also need to radically re-configure our financial support for medical schools to assure that we are getting an excellent return on our taxpayers' investment, as measured by training the kind of doctors America needs for the communities that need them most. We can no longer maintain the disproportion of hospital-based GME funding at 20-times the levels at which we fund title VII and title VIII primary care training programs. We need new mechanisms that train physicians to practice in teams in community-based settings to provide the right care in the right setting at the right time. COGME has suggested that title VII needs to jump tenfold from $50 million to $500 million, and still it would represent only 5 percent of the amount currently passed through Medicare to hospitals for GME. So we must test ways to disconnect the CMS graduate medical education payments from hospital-based specialty care, and fund community-based outpatient training programs that train clinicians to offer the right care in the right setting at the right time. **Why pay to train doctors we don't need to practice in places where they are not needed?**

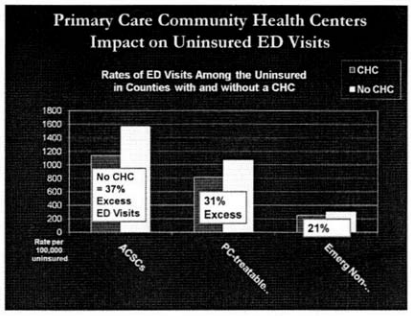
Finally, we need to re-connect academic medical centers with real-world primary care and community health outcomes. A good start would be robust funding of the **teaching community health centers model,** connecting training and service for every medical student in schools that receive Federal funding. Health professions funding should have a directly measurable ROI, and I can even imagine funding formulas pro-rated to the production of the clinicians America actually needs, clinicians who represent the diversity of the American people, who engage in community-oriented, team-based primary care, and who serve in communities of greatest need. Morehouse School of Medicine and other leading institutions have taken heroic risks with their own survival to prove that it can be done. **Let's train the clinicians America actually needs. Let's be smart about paying for health professions education that gives us a good return on our investment, and then reap the benefits in lower healthcare spending, more appropriate care, and better health for all Americans.**

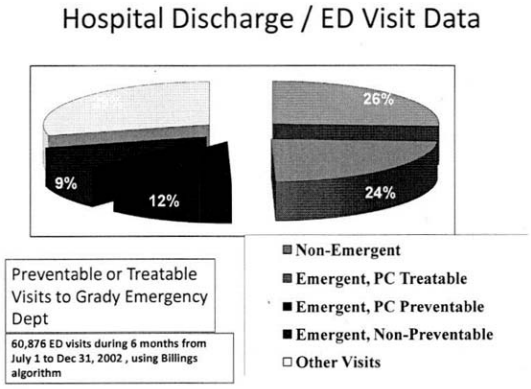
Thank you.

TABLE 1—Adjusted Mortality Rates (per 100 000) for Selected Conditions: United States, 1950–2000

	Year 1950 Rate	Highest Rate (Peak Year)	Lowest Rate (Trough Year)	Year 2000 Rate	Decline From Peak Year, %
Stroke	180.7	180.7 (1950)	60.9 (2000)	60.9	66.3
Heart disease	586.8	586.8 (1950)	257.6 (2000)	257.6	56.1
Uterine and cervical cancer	26.2	26.2 (1950)	7.2 (2000)	7.2	72.5
Gastric cancer	24.2	24.2 (1950)	4.6 (2000)	4.6	81.0
HIV	. . .	16.3 (1995)	5.2 (2000)	5.2	67.9
Tuberculosis	25.5	25.5 (1950)	0.2 (2000)	0.2	91.4
Syphilis	6.1	6.1 (1950)	0.0 (2000)	0.0	100
Influenza and pneumonia	48.1	48.1 (1950)	23.7 (2000)	23.7	50.7
Unintentional injuries	78.0	78.0 (1950)	34.9 (2000)	34.9	55.3







Senator SANDERS. Thank you very much, Dr. Rust.

Our second witness is Dan Hawkins, senior vice president, Public Policy and Research at the National Association of Community Health Centers. During his tenure at the NACHC, Federal support for health centers has grown from $350 million to over $1.6 billion annually, and the number of people served by health centers has grown from 5 million to over 20 million.

Mr. Hawkins, thanks so much for being with us.

STATEMENT OF DANIEL R. HAWKINS, JR., SENIOR VICE PRESIDENT, PUBLIC POLICY AND RESEARCH AT THE NATIONAL ASSOCIATION OF COMMUNITY HEALTH CENTERS, WASHINGTON, DC

Mr. HAWKINS. Thank you and good morning, Mr. Chairman, Ranking Member Burr, and distinguished members of the subcommittee.

On behalf of the National Association of Community Health Centers and the American health center community, I thank you for this subcommittee's strong bipartisan support of health centers, and for the opportunity to join today's discussion of the primary care workforce challenges.

Today, there are over 1,200 community health centers located at more than 9,000 urban and rural locations nationwide serving as health care homes for more than 22 million Americans. By statute and mission, health centers are located in medically underserved areas and care for patients regardless of their ability to pay.

Health centers have experienced significant growth over the last decade, and are projected to continue growing with funding provided under the Affordable Care Act. And thanks to your leadership, Mr. Chair.

With this growth, however, they also face challenges in recruiting sufficient numbers of clinicians. To address this problem, health centers have adopted and embraced a grow our own strategy, training all types of health professionals right in our health centers to address the team approach to health care delivery. Nurse practitioners, physician assistants, certified nurse midwives, dentists, dental hygienists, and behavioral health professionals are key members of our health home teams.

Today, I will focus on physician training.

Health centers have a long history training medical residents. Some have residents through for a few short weeks, others for longer periods of time, and still others serve as the home for a resident's full ambulatory care training experience. To date, we know of at least 57 health centers nationally engaged in significant residency training activity.

Now, these programs have proven to be most beneficial for everyone and especially for rural communities. Health center trained residents are four times more likely to remain at health centers and more than two-thirds of them report working in underserved communities following graduation, nearly double the rate for those trained elsewhere.

Yet, a lack of dedicated and reliable funding for this training has prevented many interested health centers from pursuing it, and saddled those that are so engaged with significant financial losses.

To that end, we were very pleased when the Teaching Health Centers, or the THC program, was created within the ACA, the first-ever Federal effort to directly fund community-based organizations to provide primary care training. Communities, after all, are where most of their primary care providers will actually spend the rest of their careers.

This new program was funded at $230 million for a 5-year period through fiscal year 2015. We estimate there are over 300 residency

slots currently at the nearly 40 THC funded programs across the country.

Under current law, the THC funding authority, as you noted, expires in fiscal 2015. However, current grantees face a more immediate threat, because they will soon be expected to recruit the class that starts July 1 of next year. And yet, they may have no funding to support the completion of that training cycle. This could literally leave incoming and even existing residents with no place to complete their training.

For this reason, we urge the committee to promptly reauthorize this program for 5 years and to fully fund it through that period. My written statement also includes some additional recommendations.

I would also like to highlight another vital program, the National Health Service Corps which, since 1970, has been an essential tool for addressing disparities that affect underserved and provider-short communities.

Since Ms. Spitzgo has already testified, I will simply note that the NHSC serves as a vital partner to health centers and she noted, with approximately half of its 10,000 assignees working there today. Like the THC program and, for that matter, the Health Centers' program, it also faces a funding cliff in fiscal 2016. We want to work with you to ensure that all these programs remain strong and intact now and post-2015.

Finally, I want to salute an incredibly innovative program that is changing the training of primary care. More than a decade ago, my organization partnered with the A.T. Still University to establish a health center focused dental school. And then 5 years later, partnered again to open one of America's newest osteopathic medical schools. These two programs are growing the next generation of health center providers having already produced more than 300 practicing dentists and over 300 medical students whose education is currently embedded in a health center.

Thank you, Mr. Chairman, and members of the subcommittee, and I would be happy to answer any questions.

[The prepared statement of Mr. Hawkins follows:]

PREPARED STATEMENT OF DANIEL R. HAWKINS, JR.

INTRODUCTION

Chairman Sanders, Ranking Member Burr, and distinguished members of the subcommittee, my name is Dan Hawkins, and I am the senior vice president for Public Policy and Research at the National Association of Community Health Centers. On behalf of the American health center community, including the more than 22 million patients served nationwide by health centers, the 131,660 full-time health center staff, and countless volunteer board members who serve our centers as well as the National Association of Community Health Centers, we thank you for this subcommittee's strong bipartisan support of health centers. I also wish to thank you for the opportunity to testimony for the committee as you continue to discuss the primary care workforce challenges facing our country.

HEALTH CENTERS—GENERAL BACKGROUND

Community Health Centers (CHCs) are community-owned non-profit entities providing primary medical, dental, and behavioral health care as well as pharmacy and a variety of enabling and support services. To date, there are over 1,200 CHCs located at more than 9,000 urban and rural locations nationwide serving as health care homes for more than 22 million patients.

By statute and mission, CHCs are located in medically underserved areas or serve a medically underserved population. CHCs see patients regardless of their ability to pay or insurance status and offer services based on a sliding fee discount.

CHCs are also directed by patient-majority boards; this unique model ensures care is locally controlled and responsive to each individual community's needs, while also reducing barriers to accessing health care though our various services.

The Nation's health centers have experienced significant growth over the last decade and received strong bipartisan support thanks to their cost-effective model which brings access to care and improved health to communities nationwide. The health center infrastructure is projected to continue to grow with the expansion of CHCs contained within the Affordable Care Act (ACA). Through the ACA's Health Center Fund, CHCs were allocated $9.5 billion over 5 years for operational expansions including the opening of new sites as well as expansions of medical and other services. This capacity expansion was designed to allow health centers to meet the needs of the newly insured, many of whom are expected to seek care at our Nation's health centers, beginning in 2014. That expansion has been slowed significantly due to a sizable reduction to health center funding in fiscal year 2011, but growth has resumed in the last 2 fiscal years.

With this operational growth, however, will come an additional strain on health centers that already face challenges in recruiting sufficient numbers of clinicians from a limited supply of primary care providers nationally. Many CHCs face challenges in filling provider vacancies across provider types including physicians, nurse practitioners, physician assistants, certified nurse midwives and nurses, pharmacists, dentists, and other clinical staff. In order to address the challenges of developing a sufficient primary care workforce for underserved communities, CHCs have embraced a strategy we like to call "grown our own," by stepping up and training health professionals right in our health centers.

Health centers have a long history of training the full complement of primary care providers, but for the purposes of this hearing I am going to focus largely on physician training.

HEALTH CENTERS AND RESIDENCY TRAINING

Health Centers have a long history training medical residents in our centers at a variety of levels. Some centers may have residents rotate through for a short few weeks, others for longer periods of time, and still others serve as the primary ambulatory care site (or "continuity clinic") for the resident's training experience. These programs have proven to be beneficial to the health centers in which they are located, to the residents, to the partnering institutions, and the medical colleges or hospitals. Through these partnerships, health centers are able to provide additional care for patients and recruit providers and residents who are more inclined to work in underserved areas after their exposure to these unique training opportunities.

To date, we know of at least 57 health center engaged in significant residency training activity. Many of these health centers are engaged in residency training at the continuity clinic level, beyond offering elective rotation experience.

Each health center residency program is unique to the community in which it is located and there are many variations on the arrangements health centers have with their partnering institutions. However, there are many universal benefits and challenges these programs face.

Residency training in health centers has proven to be a successful way for health centers to recruit providers and to them practicing in medically underserved areas. In fact, health center trained residents are four times more likely to work in health centers. In addition, more than two thirds of health center-trained residents reported working in underserved settings following graduation—nearly double the rate of non-health center-trained graduates. These training benefits are particularly significant in rural areas of the country where access to academic medical centers are limited.[1]

Yet, a lack of dedicated and reliable funding for this community-based training at the continuity level prevents many interested health centers from pursuing it. Even for those engaged in these activities, funding is often tenuous and many programs result in a financial loss for the health center. Partnering institutions often do not provide enough reimbursement and patient revenue does not generate enough funding to offset the direct and indirect costs faced by health centers engaging in this training. Some financing to cover the costs of training is provided by Medicare and Medicaid reimbursement from patients whose care is supervised by

[1] Morris, C., Kim, S., Chen, F. *Training Family Physicians in Community Health Centers: A Health Workforce Solution, Health Services Research*. 2008; 40 (4): 271–275.

physician preceptors and resident billing for patients seen, but unreimbursed indirect costs are particularly significant. Many residency programs cover some of the direct costs incurred by CHCs, but such funding is often unreliable and CHCs generally do not receive adequate resources to support their indirect costs such as additional space, supplies and staff time commitments that residency training requires.[2]

THE TEACHING HEALTH CENTER PROGRAM

Until health reform, efforts to coordinate and fund residency training in community based settings such as CHCs had been accomplished on a very limited scale. Efforts within the Affordable Care Act focused on unique ways to foster and more reliably fund primary care training in community-based settings.

Given the role health centers play across the country in training various health professionals, health centers were uniquely positioned to help meet what we believe is an important goal of health reform to "flip the pyramid" and move our Nation toward a broader base of primary care instead of the inverse specialty care driven system we have today.

To that end, we were very pleased when the Teaching Health Centers Graduate Medical Education (THCGME) program was created within ACA. This represented Congress' first direct investment in primary care training in the community, where the vast majority of primary care providers will actually practice upon completion of their training. The ACA authorized and appropriated $230 million in total funding for a 5-year (fiscal year 2011–15) payment program to support accredited primary care residency training programs operated by community-based entities, including health centers.

The THCGME statute also authorized but did not appropriate $125 million in developmental grants for developing THCs. The goal of these grants was to help defray the cost of establishing a THC, including curriculum development, recruitment, training and retention of residents and faculty, accreditation, faculty salaries, and technical assistance.

Currently, our estimates are that there are over 300 residency slots at nearly 40 THCGME-funded programs across the country. Eligible training programs are accredited graduate medical education residency training programs in: family medicine, internal medicine, pediatrics, internal medicine-pediatrics, obstetrics and gynecology, psychiatry, general dentistry, pediatric dentistry, and geriatrics.

While the program is still in its early stages, it is already starting to change the paradigm of residency training by putting community-based entities in the driver's seat for the first time.

CURRENT CHALLENGES FOR THE TEACHING HEALTH CENTER GME PROGRAM

The $230 million in ACA funding allocated for the THCGME program expires in fiscal year 2015 at the end of the program's 5-year authorization. However, current grantees are facing a more immediate threat to their programs.

The traditional residency year begins July 1, and while varying by discipline, most residencies run at least 3 years. Grantees will be recruiting this summer and fall for the class that will start July 1, 2014 and will be in the midst of their residency training when THC funding expires. Absent some certainty by this summer or fall, these programs will face the untenable situation of recruiting a resident class for which they may have no funding to support completion of those residents' training. Instead, many have indicated they will not recruit a next class absent the assurance of continued funding. For those programs that were created specifically with THCGME funding, in particular, this could mean their programs enter a "death spiral." If no new class is recruited, faculty may leave and existing residents may also want to do so, but in an environment where most hospital-based programs are at their GME cap, these residents could be orphaned.

For this reason, and to ensure this innovative new program is not extinguished before it has even had the opportunity to make its mark on the way our Nation trains its primary care providers, we urge this committee to promptly reauthorize this program for 5 additional years and to fully fund it through that period.

ISSUES FOR CONSIDERATION

The THC program, as designated by the ACA, is essentially a capped entitlement, providing a fixed "direct" or mandatory appropriation for operating teaching health

[2] National Association of Community Health Centers. *Health Centers' Contributions to Training Tomorrow's Physicians: Case Studies of FQHC-Based Residency Programs and Policy Recommendations for the Implementation of the Teaching Health Centers Program*. August 2010. *http://www.nachc.com/client/THCReport.pdf*.

centers. Due to this construction, HRSA is obligated, as long as funds are available, to fund all programs that apply and meet the program requirements. As such, HRSA must continue to fund all programs meeting the requirements of the program for as many qualifying programs as requested as long as funding is available.

Absent an annual limitation on funding, a surge in interest in the program could deplete the program's total funding in a very short timeframe, possibly even a single year, making an annual funding cap prudent and likely essential for long-term sustainability. With an annual cap in place, we believe it is equally important that there be some mechanism, such as a minimum per resident amount, in place to ensure that there is reliability for those operating the programs. In effect, we propose a ceiling be established for annual program funding, which make necessary the construction of a floor in terms of a minimum per-resident amount.

THE NATIONAL HEALTH SERVICE CORPS AND HEALTH CENTERS

While the Teaching Health Center GME Program aims to address the critical issue of the supply of primary care providers in medically underserved communities, another vital program, the National Health Service Corps (NHSC) has since 1970 been an essential program in addressing provider distribution disparities that affect the underserved and provider-short communities where health centers and other key health care systems are located.

With my colleague Rebecca Spitzgo here with me today, I will not cover the full landscape of how critically important the NHSC is. However, I would be remiss if I failed to note that the NHSC serves as a vital partner to the Health Centers program. According to the most recent numbers I have seen, approximately half of the approximately 10,000 health professionals currently placed by the NHSC are working at CHCs—and those providers make up almost one-fifth of the health center clinician staff nationally.

The NHSC has been an incredibly successful recruitment tool for health centers seeking to attract providers to our safety-net settings. According to NHSC clinician retention surveys, many NHSC providers stay at their service site, another NHSC site, or in an underserved area after completing their service obligation. A 2012 HRSA NHSC retention survey found that 82 percent of NHSC clinicians who completed their service commitment in the Corps continued to practice in underserved communities up to 1 year after their service completion and 55 percent of National Health Service Corps clinicians continue to practice in underserved areas 10 years after completing their service commitment.[3]

The NHSC was expanded in the ACA, with $1.5 billion in mandatory funds provided over 5 years, enough to train and place some 17,000 health professionals by 2015. Due to a fiscal year 2011 reduction however, that expansion has been significantly scaled back. In addition, starting in fiscal year 2011 and continuing through the present, the NHSC's entire budget has been tied solely to the ACA mandatory fund and, like the Teaching Health Center Program, and the Health Centers program, for that matter, it also faces a funding cliff in fiscal year 2016.

The NHSC has been, and remains, a key partner, particularly for CHCs, in the expansion of care prior to the coming coverage expansions under the ACA. We want to work with you in the years ahead to ensure that it remains strong and intact now and post-2015.

TRUE INNOVATION IN PRIMARY CARE TRAINING: A.T. STILL UNIVERSITY PARTNERSHIP WITH CHCS

I would also like to briefly touch on an incredibly innovative program that is at the forefront of training primary care practitioners. The A.T. Still University (ATSU) has long had a commitment to providing medical care for those most in need that started with its founder. Doctor Andrew Taylor Still followed in his father's footsteps by bringing care to the most isolated, vulnerable and needy—regardless of their ability to pay.

Today, ATSU has four campuses with the School of Osteopathic Medicine (SOMA) and dental school located in Mesa, AZ. From its inception, ATSU has focused on community-based care and educating the next generation of osteopathic physicians in the communities that those campuses serve. This made for a natural partnership with health centers. Recognizing the need to increase the number of primary care providers, my organization, NACHC, partnered with ATSU more than 11 years ago to establish a health-center focused osteopathic dental school—and then 5 years

[3] Bureau of Primary Health Care, Health Resources and Services Administration, DHHS. NHSC Clinician Retention: A Story of Dedication and Commitment. December 2012. *http://nhsc.hrsa.gov/currentmembers/membersites/retainproviders/retentionbrief.pdf*.

later, partnered again to open one of America's newest medical schools—that are each not only growing the next generation of health center providers, but also challenging the notion of how medical training is structured.

Today, ATSU's partnership with NACHC continues through Contextual Learning Campuses at health centers throughout the country. In this first-of-its-kind model, students begin their clinical observations in health centers at the start of their second year instead of waiting until the third year as in most traditional programs. Third- and fourth-year students complete their clinical rotations at health centers and in Community Campus associated hospitals, as well as with affiliated healthcare providers and at select healthcare institutions.

ATSU's work with health centers is already making impressive strides toward improving the number of community-based care providers. To date, our partnership has produced more than 300 practicing dentists, one-half of whom are working at health centers today, with more than 30 of those graduates serving as health center dental directors. Moreover, there are 315 medical students whose education is currently embedded in a health center. ATSU has 200 health center affiliated clinical agreements and over 1,500 CHC shadowing or clinical rotations per year.

This very successful partnership is providing osteopathic dental and medical students with significant exposure to the unique challenges of working in an underserved setting and making them better providers along the way.

CONCLUSION

Today, 60 million Americans lack regular access to primary care, even as the Nation is preparing to provide health coverage for as many as 30 million newly insured Americans. Health centers stand ready to do our part to meet these enormous challenges of providing a health care home for these individuals.

We believe—and indeed we know from experience—that training residents in health centers offers the opportunity to both improve the supply of primary care providers in our Nation and to better distribute those providers to meet the needs and demands of medically underserved communities.

Common-sense programs like the THCGME program and the National Health Service Corps are essential to these efforts—addressing both the supply and distribution issues currently vexing our primary care workforce.

We know that growing our primary care workforce and expanding primary care access is the only way we will achieve true health care reform that provides Americans the right care, in the right place, at the right time.

We look forward to working with you and the other members of this subcommittee to accomplish this shared goal. We simply cannot afford to fail.

Thank you, Mr. Chairman and members of the subcommittee.

Senator SANDERS. Thank you very much, Mr. Hawkins.

Senator Burr is going to introduce our next panelist.

Senator BURR. Mr. Chairman, it is indeed a pleasure to welcome and to introduce Dr. Paul Cunningham, the Dean and Senior Associate Vice Chancellor for Medical Affairs at the Brody School of Medicine at East Carolina University in Greenville, NC.

Dean Cunningham joined East Carolina as dean of the Brody School in the fall of 2008, and Dean Cunningham comes to North Carolina by way of Jamaica and New York City, not the traditional route that people find their way to our State. But we are pleased he chose Greenville as his home.

Before his role as dean of the Brody School of Medicine, Dr. Cunningham held a number of positions including among them Professor of Surgery at ECU, Chief of Staff at Pitt County Memorial Hospital, and is currently serving as Governor of the American College of Surgeons.

Dr. Cunningham is board certified in general surgery, and currently has a focus in the areas of trauma and bariatric surgery.

Thank you, Dr. Cunningham, for taking the time to travel to be here with us today. I am glad that you will have the opportunity to share with my colleagues the success that you have helped achieve at the Brody School of Medicine, Dr. Cunningham.

Senator SANDERS. Dr. Cunningham, thank you very much for being with us. Please.

STATEMENT OF PAUL R.G. CUNNINGHAM, M.D., FACS, DEAN AND SENIOR ASSOCIATE VICE CHANCELLOR FOR MEDICAL AFFAIRS AT THE BRODY SCHOOL OF MEDICINE, EAST CAROLINA UNIVERSITY, GREENVILLE, NC

Dr. CUNNINGHAM. Mr. Chairman and Ranking Member Burr, thank you very much for the opportunity to represent the Brody School of Medicine at East Carolina University at this hearing and to submit this statement for the record. I want to thank you for this invitation.

The Brody School of Medicine at East Carolina University has roots that go back to the early 1970s when the North Carolina General Assembly appropriated $43 million to build a full-fledged medical school at East Carolina University.

Legislatively mandated at the time, the mission of the Brody School of Medicine was, and continues to be, intentionally tripartite in nature. To educate primary care physicians, to provide access to careers in medicine for minority and disadvantaged students, and to improve health care in eastern North Carolina. As a result of that, the Brody School of Medicine is setting the pace for the Nation in some very important ways.

It is the highest ranking school in the percent of graduates from 1996 to 2000 practicing in rural areas, 95 percentile in graduates practicing in primary care according to the 2013 AAMC mission management tool. It is the highest ranking school in the percent of graduates from 1996 to 2000 practicing in underserved areas, 95th percentile in graduates practicing primary care according to the 2013 AAMC mission management tool, 96th percentile for graduates practicing primary care.

The highest ranking school in the percent of graduates from 2007 to 2009 entering training in family medicine, 100th percentile, the highest ranking school in the percent of graduates practicing family medicine.

The highest ranking school in the percent of graduates, from 2004 to 2009, who are American Indian or Native American; 98 percentile ranking nationally for graduate who are Native American, according to the 2013 AAMC mission management tool.

The highest ranking school in the percent of graduates from 2004 to 2009 who are Black or African-American, 98th percentile ranking nationally for graduates who are Black or African-American according to the AAMC 2013 mission management tool.

Achieved the lowest ranking amongst all schools in cost of attendance for a 2012 graduate, where low cost is desirable. For the 4 years, $119,891.

Achieved the lowest ranking among all schools in average debt of 2010 graduates, $92,413. At the 4th percentile nationally for average debt of graduates according to the 2013 AAMC mission management tool.

For the current year, and for many, many years preceding, the Brody School of Medicine has the lowest combined rate for tuition and fees of all public medical schools in the 50 States.

We are bending the health curve in East North Carolina in a positive manner. A 20-year trajectory for age adjusted mortality rates show an 18 percent decrease that tracks favorably with the rest of the State, and a couple of percentage points more favorable than the Nation overall.

Although this was not stated as a part of the mission, it is important to note the transformative economic effect to Greenville, where we live, and the surroundings of the establishment and growth of Brody School of Medicine, we have been an important economic engine for the region.

These accomplishments have been realized despite successive permanent State budget cuts of approximately 17 percent since fiscal year 2008–9.

How do we accomplish these goals? We accomplish them in a number of ways. We are embedded in the most rural part of North Carolina and the communities that we serve. We are closely affiliated with, but do not own, a large teaching hospital: Vidant Medical Center. The cause is noble, and the faculty who are selected are authentic in their mentorship. Our faculty, and staff, and students display a visible and palpable commitment to the mission of the School.

There has never been 1 day of mission drift as the winds of time change with respect to physician production models or other changes in the health care system. The mission of the School precisely aligns with the needs of the communities that we serve.

Our curriculum is aligned in a manner that provides early clinical experience with primary care physicians and embeds primary care training and exposure throughout the 4 years of training. There is immediate gratification at the professional and personal level when the work that is being accomplished shows visible evidence of success, and there are measurable changes in the lives of those that we serve.

We actively select individuals with the competencies and the capacities to serve the mission and the needs of the citizens. And over time, the aspirations and behaviors have become internalized, and now drive performance and have created lifelong habits.

In terms of the future, the commitment of other medical schools across the Nation is no different, but in the past, the development of their strategies and missions were predicated on different reward models and strategies.

The Government has a responsibility to help with the transitions that are necessary to align payment and rewards with the current and future needs of our citizens. Current health care debates are critical, but should not deter us from progress.

The focus will need to be on what we should do, rather than on what we can do. This is a reality that recognizes that people are not succumbing to chronic diseases as in the past and that they are negotiating their way through an even more vastly complex health care system. Acknowledging that, and creating teams of health professionals to put around patients and families to help coordinate their care with the patient at the center of decisionmaking is critical for success.

It remains unclear as to the method by which we will be able to successfully up scale the current educational enterprise, or export

the positive outcomes to other cultures or geographic locations. We could easily grow and produce more of the excellent outcomes we have achieved, but need to have primary care and other residencies in which to send students after medical school.

We sense an advantage locally, since we are co-located and fully collaborative with the most prolific school of nursing in the State; a prestigious College of Allied Health; the newest and most innovative school of dental medicine; a robust area health education system; and a cooperative community college system.

We are prepared to join in future conversations, in depth, and across the Nation, so as to bring greater enlightenment.

Thank you again for the opportunity.

[The prepared statement of Dr. Cunningham follows:]

PREPARED STATEMENT OF PAUL R.G. CUNNINGHAM, M.D., FACS

As Dean, I am pleased to represent the Brody School of Medicine at East Carolina University at this hearing and to submit this statement for the record. I want to thank Chairman Sanders and Ranking Member Burr for holding this hearing on such an important topic and for extending to me an invitation to testify.

HISTORY

The Brody School of Medicine at East Carolina University has roots that go back to the early 1970s, when the North Carolina General Assembly appropriated the $43 million to build a full-fledged medical school at East Carolina University.

Legislatively mandated at the time, the mission of the Brody School of Medicine was, and continues to be, intentionally tripartite in nature:

- To educate primary care physicians.
- To provide access to careers in medicine for minority and disadvantaged students.
- To improve health care in eastern North Carolina.

RESULTS

The Brody School of Medicine is setting the pace for the Nation in some very important ways:

- Highest ranking school in percent of graduates from 1996–2000 practicing in rural areas; 95th percentile in graduates practicing primary care according to the 2013 AAMC Missions Management Tool.
- Highest ranking school in percent of graduates from 1996–2000 practicing in underserved areas; 95th percentile in graduates practicing primary care according to the 2013 AAMC Missions Management Tool.
- 96th percentile for graduates practicing primary care.
- Highest ranking school in percent of graduates from 2007–9 entering training in family medicine; 100th percentile—highest ranking school—in percent of graduates practicing Family Medicine.
- Highest ranking school in percent of graduates from 2004–9 who are American Indian or Native American; 98th percentile ranking nationally for graduates who are Native American according to the 2013 AAMC Missions Management Tool.
- Highest ranking school in percent of graduates from 2004–9 who are Black or African-American; 98th percentile ranking nationally for graduates who are Black/African-American according to the 2013 AAMC Missions Management Tool.
- Achieved the lowest ranking among all schools in cost of attendance for a 2012 graduate (where low cost is desirable); $119,891.
- Achieved the lowest ranking among all schools in average debt of 2010 graduates; $92,416. At the 4th percentile nationally for average debt of graduates according to the 2013 AAMC Missions Management Tool.
- For the current year—and for many, many years preceding—the Brody School of Medicine has the lowest combined rate for tuition and fees of all public medical schools in the 50 States.
- We are bending the health curve in eastern North Carolina in a positive manner—a 28 year trajectory for age-adjusted mortality rates shows an 18 percent decrease that tracks favorably with the rest of the State, and a couple of percentage points more favorable than the Nation overall.

• Although this is not a stated part of the mission, it is important to note the transformative economic effect to Greenville and surroundings of the establishment and growth of Brody School of Medicine. We have been an important "economic engine" for the region.
• These accomplishments have been realized despite successive permanent State budget cuts of approximately 17 percent since fiscal year 2008–9.

METHOD USED TO ACHIEVE A POSITIVE OUTCOME

We accomplish these goals in a number of ways.

1. We are embedded in the most rural part of North Carolina, and the communities that we serve.
2. We are closely affiliated with, but do not own a large teaching Hospital—Vidant Medical Center.
3. The cause is noble, and the faculty who are selected are authentic in their mentorship.
4. Our faculty, staff and students display a visible and palpable commitment to the mission of the School. There has never been 1 day of mission drift as the winds of time change with respect to physician production models or other changes in the health care system.
5. The mission of the School precisely aligns with the need of the communities that we serve.
6. Our curriculum is aligned in a manner that provides early clinical experience with primary care physicians and embeds primary care training and exposure throughout the 4 years of training.
7. There is immediate gratification at the professional and personal level when the work that is being accomplished shows visible evidence of success, and there are measurable changes in the lives of those that we serve.
8. We actively select individuals with the competencies, and the capacities to meet the mission and the needs of the citizens that we serve.
9. Over time, the aspirations, and behaviors have become internalized, and now drive performance, and have created lifelong habits.

FORECASTING THE FUTURE NEEDS FOR RURAL EASTERN NORTH CAROLINA, AND THE NATION

1. The commitment of other medical schools across the Nation is no different, but in the past, the development of their strategies and missions were predicated on different reward models and strategies.
2. The government has a responsibility to help with the transitions that are necessary to align payment and rewards with the current and future needs of our citizens.
3. Current health care debates are critical, and should not deter us from progress.
4. The focus will need to be on what we should do, rather than on what we can do. This is a reality that recognizes that people are not succumbing to chronic diseases as in the past, and that they are negotiating their way through in a vastly more complex health care system. Acknowledging that, and creating teams of health professionals to put around patients and families to help coordinate their care with the patient at the center of decisionmaking is critical for success.
5. It remains unclear as to the method by which we will be able to successfully up-scale the current educational enterprise, or export the positive outcomes to other cultures or geographic locations. We could easily grow and produce more of the excellent outcomes we have achieved, but need to have primary care and other residencies in which to send students after medical school.
6. We sense an advantage locally, since we are co-located and fully collaborative with the most prolific School of Nursing in the State; a prestigious College of Allied Health; the newest and most innovative School of Dental Medicine; a robust Area Health Education System; and a cooperative Community College System.
7. We are prepared to join in future conversations, in depth, and across the Nation, so as to bring greater enlightenment.

Thank you again for the opportunity to submit this statement for the record and for your interest and leadership in this important subject for the future of healthcare in our Nation.

The Brody School of Medicine at East Carolina University stands ready to work with the Subcommittee to strengthen and improve the ways in which we train primary care physicians in the United States.

[**Editor's Note:** The BSOM narrative report is maintained in the committee file.]

Senator SANDERS. Dr. Cunningham, thank you very much.

Our fourth witness is a fellow Vermonter, Deborah Wachtel, who has served patients as a nurse practitioner since 1986, and as a registered nurse since 1975. She is pursuing a doctorate of nursing practice and holds a master's degree in nursing, a master's degree in public health, and a bachelor's degree in community health sciences.

Thank you very much for being with us, Ms. Wachtel.

STATEMENT OF DEBORAH WACHTEL, NP, MPH, MSN, PRESIDENT OF THE VERMONT NURSE PRACTITIONER ASSOCIATION AND VERMONT STATE REPRESENTATIVE FOR THE AMERICAN ASSOCIATION OF NURSE PRACTITIONERS, ESSEX, VT

Ms. WACHTEL. Thank you, Chairman Sanders, Ranking Member Burr, and members of the committee.

I appreciate the opportunity to speak with you on behalf of the 155,000 nurse practitioners across the United States.

As you know, my name is Deborah Wachtel. I have been a registered nurse since 1975, a nurse practitioner since 1986, a master's degree in public health, and a master's degree in nursing. As an adult nurse practitioner, my focus has always been primary care. First in women's health and now in chronic disease prevention and management, which includes diabetes, obesity, cardiovascular disease, and endocrine disorders.

I currently serve as Vermont State representative for the American Association of Nurse Practitioners, which is the largest nurse practitioner association in the country with over 43,000 members. In addition to my role with AANP, I am the president of the Vermont Nurse Practitioner Association, and a Governor-appointed commissioner on the Vermont Blue Ribbon Commission on nursing.

NPs have been providing primary care for half a century and are rapidly becoming the health care provider of choice for millions of Americans. The vast majority of nurse practitioners throughout the United States are currently providing primary care services including adult, family, gerontologic, pediatrics, and women's health. In fact, 88 percent of NPs are prepared to be primary care clinicians and nearly 70 percent are currently practicing in a primary care setting.

In Vermont where we have full practice authority, there are 441 practicing NPs. As clinicians that blend clinical expertise in diagnosing and treating health conditions with an added emphasis on health promotion and disease prevention, NPs bring a comprehensive patient-centered perspective to health care.

All NPs must complete a master's or doctoral degree and have advanced clinical training beyond their initial, professional registered nurse preparation. Didactic and clinical courses prepare nurses with specialized knowledge, clinical competency and training to provide primary, acute, and specialty healthcare service including diagnosis and treatment of acute and chronic illnesses from a straightforward pharyngitis to multiple, complex health problems. Ordering, performing, supervising, and interpreting diagnostic tests including lab tests and x-rays, prescribing medications and other treatments, and managing patients' overall health care. Outcome studies clearly demonstrate that NPs provide high qual-

ity, cost effective, primary care with high patient satisfaction ratings.

I want to thank Senator Sanders, who has been a major supporter of the FQHC model of health care delivery in Vermont, which has shown great success in delivering primary care services.

Currently, there are a total of 43 health centers serving 8 counties where nurse practitioners provide primary care to the State's most vulnerable populations. It is important to note NPs within these practices also provide valuable preceptor opportunities for nurse practitioner and medical students.

According to the American Association of Colleges of Nursing, since 2010, enrollments in master's and doctor of nursing practice programs grew by 33 percent. In my home State of Vermont, the University of Vermont has graduated nearly 300 nurse practitioners, all of which are in primary care tracks. Ninety percent practice in primary care.

Last year, the University had 84 students enrolled in primary care NP programs, yet turned away 48 qualified applicants. Nationally, we turned away 9,600 NP program applicants due to faculty shortages. It is critical that investments are made to reduce the barriers that prohibit schools of nursing from accepting primary care nurse practitioner students.

The Health Resources and Services Administration reports that 6,333 Vermont residents are living in 30 primary care health professional shortage areas. Vermont's demand for primary care is emblematic of the need at the national level. NPs can help fill this need.

I would be remiss if I did not take the opportunity to ask that the committee help to remove the barriers to care. There are many limitations in current law including the requirement that a physician must certify that: face-to-face visits by nurse practitioners have been completed in order for an NP to certify eligibility for home health care services. That only a physician may make the initial certification of patients for hospice care. That only a physician may certify the order for certain durable medical equipment. That only a physician may conduct the admitting physical exam and every other routine visit to patients in skilled nursing facilities. That a physician, rather than a nurse practitioner, must be onsite when cardiac and/or pulmonary rehab is being conducted, and only a physician may conduct the admitting physical exam of a rehab center.

By removing such barriers and unnecessary redundancies to improve access to health care, we can best serve our patients' needs. Now, is the time to give consumers the freedom to choose among all qualified providers, just as we have in Vermont and 16 other States.

My nurse practitioner colleagues and I stand ready to serve our patients in all areas of health care, and look forward to working with this committee, and the Congress, to ensure patients' needs are met.

Thank you very much.

[The prepared statement of Ms. Wachtel follows:]

PREPARED STATEMENT OF DEBORAH WACHTEL NP, MPH, MSN

Thank you Chairman Sanders, Ranking Member Burr, and members of the committee. I appreciate the opportunity to speak with you on behalf of the 155,000 Nurse Practitioners across the United States. I would also like to take this time to note that I currently serve as Vermont's State representative for the American Association of Nurse Practitioners (AANP), which is the largest nurse practitioner association in the country.

My name is Deborah Wachtel. I have been a registered nurse since 1975 and a nurse practitioner since 1986. I have a Bachelor's degree in Community Health Sciences, a Master's Degree in Public Health, and a Master's Degree in Nursing, and I am currently in a Doctor of Nursing Practice (DNP) program. My field of practice is as an adult nurse practitioner; my focus has always been toward primary care, first in women's health and now in chronic disease prevention and management. My current work as an nurse practitioner (NP) includes work with diabetes, obesity, cardiovascular disease, and endocrine disorders. In addition to my role with AANP, I am also the president of the Vermont Nurse Practitioner Association, a Governor-appointed commissioner on the Vermont Blue Ribbon Commission on Nursing, and represent NPs on the Vermont Action Coalition which focuses on advancing the Institute of Medicine (IOM) recommendations on the Future of Nursing.

NPs have been providing primary care for half a century and are rapidly becoming the health care provider of choice for millions of Americans. The vast majority of nurse practitioners throughout the United States are currently providing primary care services. This includes adult, family, gerontological, pediatrics and women's health nurse practitioners. In fact, 88 percent of NPs are prepared to be primary care clinicians and nearly 70 percent are currently practicing in a primary care setting. Currently in Vermont there are 441 practicing NPs. As clinicians that blend clinical expertise in diagnosing and treating health conditions with an added emphasis on health promotion and disease prevention, NPs bring a comprehensive perspective to health care. NPs are clinicians with advanced education and training who provide primary, acute and specialty healthcare service including diagnosis and treatment of acute and chronic illnesses—from a straightforward pharyngitis to complex multiple health problems—ordering, performing, supervising and interpreting diagnostic tests including laboratory tests and x-rays, prescribing medications and other treatments and managing patients' overall health care. *I have attached AANP's NP Facts, Scope of NP Practice, Standards of Practice, Quality of NP Practice, and NP Cost-Effectiveness documents to my testimony for your reference*.

This comprehensive perspective is deeply rooted in our educational background. All NPs must complete a master's or doctoral degree program, and have advanced clinical training beyond their initial professional registered nurse preparation. Didactic and clinical courses prepare nurses with specialized knowledge and clinical competency to practice in primary care, acute and long-term health care settings. Growth in our Nation's nurse practitioner programs has steadily increased with the demand for primary care. According to the American Association of Colleges of Nursing (AACN), since 2010, enrollments in master's and doctor of nursing practice programs grew by 33 percent yet more encouraging, since 2010, graduations from these programs increased by 40 percent. In the 2012 academic year, 46,353 students were enrolled and 11,540 students graduated from nurse practitioner programs that prepared them as primary care providers. While this growth rate is critical to addressing the shortage of primary care providers, it is sobering to note that our schools of nursing also turned away 9,640 qualified applicants to primary care nurse practitioner programs due to faculty shortage, budget restraints, and lack of clinical sites. This represents a 54 percent increase in applicants turned away since 2010. In particular, the shortage of nurse faculty creates a bottleneck for sustainable growth in our NP programs. Across the country, nearly 1,800 vacant faculty positions were reported by AACN member schools in academic year 2011–12. It is critical that investments are made to reduce the barriers that prohibit schools of nursing from accepting primary care nurse practitioner students.

In my home State of Vermont, the University of Vermont (UVM) responded to AACN's survey; which shows that the University graduated 24 students and currently has 84 students enrolled in primary care NP programs. At the same time, the University turned away 48 qualified applicants; this is double the number of students graduated. According to Health Resources and Services Administration (HRSA), 6,333 Vermont residents are living in 30 primary care Health Professional Shortage Areas. Vermont's demand for primary healthcare is emblematic of the need at the national level. Nurse practitioners can help to meet that need.

UVM has offered graduate level education for Primary Care NPs since 1999. The NP program at UVM includes Family, Adult and Psychiatric-Mental Health NPs.

The vast majority of these graduates stay in Vermont to practice and approximately 90 percent practice in primary care settings. The NP students have applied for HRSA Graduate Traineeship funds, and the awards have been as much as $1,400 per year (per student) over the past 8 years, though many students received no award. In 2012, through the Affordable Care Act, UVM was awarded Traineeship funds for $350,000 for 2 years. This substantial increase in funds has helped to increase support for 48 students, whose awards ranged from $5,200 to $14,500 for this past year. We are hopeful that this HRSA funding will continue in subsequent years. UVM strives to increase diversity within their program, and all students are expected to participate in caring for populations in rural and underserved areas. Clinical rotations are spread throughout our rural State.

Unfortunately, UVM faces the same faculty shortages felt across the Nation with one full-time tenure track NP position vacant for 4 years, despite searches for the position every year. Additionally, we have had a full-time clinical track NP position that has been filled by faculty for 2–3 years only, representing turnover of faculty and disruption of coverage for classes.

To meet the demand for, and adhere to, the highest level of quality care standards, NPs undergo rigorous national certification, periodic peer review, clinical outcome evaluations, and observe a code for ethical practices. Continuing education and professional development are also essential to maintaining clinical competency. It is important to note that NPs are licensed in all States and the District of Columbia and practice under the rules and regulations of the State in which they are licensed. We provide care in many types of settings including clinics, hospitals, emergency rooms, urgent care sites, private physician or NP practices, nursing homes, schools, colleges, and public health departments. In the State of Vermont, NPs are able to practice at the full scope of their education and credential; patients have benefited from this privilege for over 2 years. Several States in my region including, Rhode Island, Maine, and New Hampshire have had autonomous practice for nearly two decades, and patients in those States have benefited from full and direct access to safe, high quality NP services.

The vast majority of nurse practitioners in Vermont practice in rural, primary care settings, many in advanced primary care practices often referred to as "the patient medical home." This innovative Vermont-born network of primary care practices is known as The Vermont Blueprint for Health. The growing network of practices, which number over 100, span the entire State and the numbers are increasing as new practices join. The focus is interdisciplinary and inter-professional primary health care, utilizing all providers and health care workers at the full extent of their credentials and education. Outcome data and benchmarking will drive the reimbursement schemes and focus of chronic disease prevention and management programs. There are approximately 122 nurse practitioners currently practicing at these health centers. This is yet another example of how we can utilize a highly educated workforce to improve the health of our citizens in a cost-effective model of high quality, patient-centered care.

A nurse owned and managed primary care health center opened its doors in southern Vermont on March 5, 2012, in response to 9,000 patients who were without primary care providers. This NP practice saw approximately 2,000 patient visits in its first year. The NP sees between 25–40 patients daily with 33 percent on Medicaid, 35 percent on Medicare, 5 percent uninsured, and the rest with private insurance and is currently booking into July. In the last 6 years, this southern county lost 14 primary care physicians and will be losing 2 more this year. Having full practice authority has made it possible for the patients in this community to have access to high quality primary care but is not without remaining barriers. The limitation of NPs to order home care under current law has created a significant barrier for addressing patient needs adding additional expense and on occasion prolonged hospital stays or avoidable re-admissions.

As an active member of AANP, I have a vast network of colleagues who practice in primary care settings. My experiences have made me acutely aware that providing high quality care in various settings provides patients with the best health care outcomes. I thank Senator Sanders, who has been a major supporter of the FQHC model of health care delivery in Vermont which has shown great success in delivering primary care services. Currently, there are a total of 29 health centers serving 8 counties where 32 NPs provide primary care to the States' most vulnerable population. It is important to note, NPs within these practices also provide valuable preceptor opportunities for nurse practitioner and medical students.

Nationally, 87 percent of NPs care for Medicare beneficiaries. Even though enormous strides have been made, multiple barriers still exist in current law. These barriers contribute to increased costs, administrative burden and interfere with the pro-

vision of quality health care delivery to Medicare beneficiaries. There are many limitations in current law including:

- the requirement that a physician must certify that face-to-face visits by nurse practitioners have been completed in order for an NP to certify eligibility for home health care services,
- that a physician must certify that a face-to-face visit by a nurse practitioner has been made in order for certain durable medical equipment to be ordered for patients,
- that a physician is required to conduct the admitting physical examination and every other routine visit to patients in skilled nursing facilities when a fully capable nurse practitioner is available to conduct those visits,
- that a physician rather than a nurse practitioner must be onsite when cardiac and/or pulmonary rehabilitation is being conducted,
- and a physician must conduct the admitting physical examination in a rehabilitation center.

I bring these examples to your attention in order to emphasize these barriers and unnecessary redundancies to delivering care.

Additionally, I would like to point out that the current Medicare Shared Savings Program limits the assignment of beneficiaries to those who receive primary care services from a physician. This makes it difficult to participant in and impossible for nurse practitioners in independent practices to establish Accountable Care Organizations (ACO) under the Shared Savings Program creating a disincentive for NPs and a challenge to patients who participate in these organizations. Removing these barriers can increase efficiency, create cost effective access to patient appropriate care and enhance the quality of the care that is being delivered more effectively by the health care workforce.

An example of how these reimbursement barriers impact access to care was recently demonstrated in the New North End of Vermont in a private practice that included three physicians and one nurse practitioner. This practice provided care for a vulnerable and aging population where each provider had a roster of 1,000–1,500 patients. The three physicians left the practice. The nurse practitioner arranged with the University of Vermont to transform this practice into a UVM owned nurse managed health center which would accomplish multiple objectives: (1) the patients who wanted to remain with this practice would not be forced to travel out of their community to seek primary care services, (2) the practice would be managed by clinical faculty, all of whom are primary care NPs, (3) the practice would provide badly needed preceptors for NP and medical students, (4) the practice would provide fellowship positions for new NP grads under the guidance of experienced primary care NPs. The Director of the Vermont Blueprint agreed to include this practice in their network, which gave the patients immediate access to a highly skilled community care team. Even with all of the above noted support, unfortunately, two large insurance entities in the State refused to empanel the NPs without the presence of a physician in the practice. The practice has remained closed.

In October 2010, the IOM released a lengthy document entitled *The Future of Nursing: Leading Change, Advancing Health*. This document describes how the nursing profession should be transformed and how harnessing the full potential of the profession can improve health care in the United States. The document recommends that nurses should practice to their full scope and should be full partners with physicians and other health care professionals in redesigning health care in the United States. I ask that you pay particular attention to recommendation I entitled: "Remove scope-of practice barriers." My colleagues and I fully endorse the IOM finding and are striving for implementation at the State and national level. *Chapter 7 of the IOM Report: Recommendations and Research Priorities, is attached for your reference*.

Vermont has embraced these recommendations in many areas. In 2011 Vermont legislature adopted the National Council of State Boards of Nursing recommendations for nurse practitioner practice laws. The Vermont Blue Ribbon Commission on Nursing created a report of recommendations that was approved and signed by Governor Shumlin in 2012. The Commission recommendations included adopting the IOM mandates which I have enclosed in my testimony, specifically targets seamless and cost-effective access to NPs, such as seeking Medicare waivers allowing NPs to order home health services for their patients.

Now is the time to give consumers the freedom to choose among all qualified providers, just as we have in Vermont. By removing barriers to improve health care, we can best serve our patient's needs. My Nurse Practitioner colleagues and I stand ready to serve our patients in all areas of health care and look forward to working

with this committee and the Congress to ensure patients' needs are met. At this time, we cannot afford to do less.

In summary, I urge the committee to examine the contributions of Nurse Practitioners across the country in various settings providing primary care to diverse populations. Removing barriers will allow patients greater access to health care, keeping them out of higher cost settings. Our added emphasis on health promotion and disease prevention perfectly positions us to be leaders in the health care profession at this critical time. I would like to acknowledge the support that our legislators have demonstrated by supporting NPs in primary care. I encourage the committee to continue this dialog with the American Association of Nurse Practitioners, as we have a vast membership from which to draw. I thank the committee for this opportunity and look forward to serving as a resource.

Attachments:

1. AANP NP Facts
2. AANP Scope of Practice for Nurse Practitioners
3. AANP Standards of Practice for Nurse Practitioners
4. AANP Quality of Nurse Practitioner Practice
5. AANP Nurse Practitioners Cost-Effectiveness
6. Institute of Medicine (IOM) Report, *The Future of Nursing: Leading Change, Advancing Health*. 269–84.

Attachments

AMERICAN ASSOCIATION OF NURSE PRACTITIONERS™

NP FACTS

The Voice of the Nurse Practitioner®

There are more than 155,000 nurse practitioners (NPs) practicing in the United States.

- An estimated 11,000 new NPs completed their academic programs in 2010–11.
- 93 percent of NPs have graduate degrees.
- 97 percent of NPs maintain national certification.
- 18 percent of NPs practice in rural or frontier settings.
- 88 percent of NPs are prepared in primary care; 68 percent of NPs practice in at least one primary care site.
- 87 percent of NPs see patients covered by Medicare and 84 percent by Medicaid.
- 43 percent of NPs hold hospital privileges; 15 percent have long-term care privileges.
- 96.5 percent of NPs prescribe medications, averaging 20 prescriptions per day.
- NPs hold prescriptive privilege in all 50 States, with controlled substances in 48.
- The early–2011 mean, full-time NP base salary was $91,310, with average full-time NP total income $98,760.
- 60 percent of NPs see three to four patients per hour; 7 percent see over five patients per hour.
- Malpractice rates remain low; only 2 percent have been named as primary defendant in a malpractice case.
- Average NP is female (96 percent) and 48 years old; she has been in practice for 12.8 years as a family NP (49 percent).

Distribution, Mean Years of Practice, Mean Age by Population Focus

Population	Percent of NPs	Years of Practice	Age
Acute Care	5.6	7.0	45
Adult+	19.3	10.9	50
Family+	48.3	9.5	48
Gerontological+	3.2	11.6	52
Neonatal	2.0	12.3	47
Oncology	1.0	8.3	47
Pediatric+	8.5	13.3	49
Psych/Mental Health	3.0	8.5	52
Women's Health+	9.0	14.7	49

+Primary care focus.

Sources: AANP National NP Data base, 2010–2011; 2011 AANP national NP Compensation Survey; 2010 AANP National Practice Site Survey; 2009 AANP Membership Survey; 2009–2010 AANP NP Sample Survey.

Additional information is available at the AANP Web site ***www.aanp.org***.

SCOPE OF PRACTICE FOR NURSE PRACTITIONERS

Professional Role

Nurse practitioners (NPs) are licensed, independent practitioners who practice in ambulatory, acute and long-term care as primary and/or specialty care providers. According to their practice specialties, they provide nursing and medical services to individuals, families and groups. In addition to diagnosing and managing acute episodic and chronic illnesses, NPs emphasize health promotion and disease prevention. Services include, but are not limited to: ordering, conducting, supervising, and interpreting diagnostic and laboratory tests; and prescription of pharmacologic agents and non-pharmacologic therapies. Teaching and counseling individuals, families and groups are major parts of NP practice.

As licensed, independent practitioners, NPs practice autonomously and in collaboration with health care professionals and other individuals to assess, diagnose, treat and manage the patient's health problems and needs. They serve as health care researchers, interdisciplinary consultants and patient advocates.

Education

Entry-level preparation for NP practice is at the master's, post-master's or doctoral level. Didactic and clinical courses prepare nurses with specialized knowledge and clinical competency to practice in primary care, acute care and long-term health care settings. Self-directed continued learning and professional development beyond the formal advanced education is essential to maintain clinical competency.

Accountability

The autonomous nature of the NP's advanced clinical practice requires accountability for health care outcomes. Insuring the highest quality of care requires national certification, periodic peer review, clinical outcome evaluations, a code for ethical practice, evidence of continuing professional development and maintenance of clinical skills. NPs are committed to seeking and sharing knowledge that promotes quality health care and improves clinical outcomes. This is accomplished by leading and participating in both professional and lay health care forums, conducting research and applying findings to clinical practice.

Responsibility

The role of the NP continues to evolve in response to changing societal and health care needs. As leaders in primary and acute health care, NPs combine the roles of provider, mentor, educator, researcher and administrator. Members of the profession are responsible for advancing the role of the NP and insuring that the standards of the profession are maintained. This is accomplished through involvement in professional organizations and participation in health policy activities at the local, State, national and international levels.

STANDARDS OF PRACTICE FOR NURSE PRACTITIONERS

I. Qualifications

Nurse practitioners are licensed, independent practitioners who provide primary and/or specialty nursing and medical care in ambulatory, acute and long-term care settings. They are registered nurses with specialized, advanced education and clinical competency to provide health and medical care for diverse populations in a variety of primary care, acute and long-term care settings. Master's, post-master's or doctoral preparation is required for entry-level practice (AANP 2006).

II. Process of Care

The nurse practitioner utilizes the scientific process and national standards of care as a framework for managing patient care. This process includes the following components.

A. Assessment of health status

The nurse practitioner assesses health status by:

- Obtaining a relevant health and medical history.
- Performing a physical examination based on age and history.
- Performing or ordering preventative and diagnostic procedures based on the patient's age and history.
- Identifying health and medical risk factors.

B. Diagnosis

The nurse practitioner makes a diagnosis by:

- Utilizing critical thinking in the diagnostic process.
- Synthesizing and analyzing the collected data.

• Formulating a differential diagnosis based on the history, physical examination and diagnostic test results.

• Establishing priorities to meet the health and medical needs of the individual, family, or community.

C. Development of a treatment plan

The nurse practitioner, together with the patient and family, establishes an evidence-based, mutually acceptable, cost-awareness plan of care that maximizes health potential. Formulation of the treatment plan includes:

• Ordering and interpreting additional diagnostic tests.

• Prescribing or ordering appropriate pharmacologic and non-pharmacologic interventions.

• Developing a patient education plan.

• Recommending consultations or referrals as appropriate.

D. Implementation of the plan

Interventions are based upon established priorities. Actions by the nurse practitioners are:

• Individualized

• Consistent with the appropriate plan for care.

• Based on scientific principles, theoretical knowledge and clinical expertise.

• Consistent with teaching and learning opportunities.

E. Followup and evaluation of the patient status

The nurse practitioner maintains a process for systematic followup by:

• Determining the effectiveness of the treatment plan with documentation of patient care outcomes.

• Reassessing and modifying the plan with the patient and family as necessary to achieve health and medical goals.

III. Care Priorities

The nurse practitioner's practice model emphasizes:

A. Patient and family education

The nurse practitioner provides health education and utilizes community resource opportunities for the individual and/or family.

B. Facilitation of patient participation in self care.

The nurse practitioner facilitates patient participation in health and medical care by providing information needed to make decisions and choices about:

• Promotion, maintenance and restoration of health.

• Consultation with other appropriate health care personnel.

• Appropriate utilization of health care resources.

C. Promotion of optimal health

D. Provision of continually competent care

E. Facilitation of entry into the health care system

F. The promotion of a safe environment

IV. Interdisciplinary and Collaborative Responsibilities

As a licensed, independent practitioner, the nurse practitioner participates as a team leader and member in the provision of health and medical care, interacting with professional colleagues to provide comprehensive care.

V. Accurate Documentation of Patient Status and Care

The nurse practitioner maintains accurate, legible and confidential records.

VI. Responsibility as Patient Advocate

Ethical and legal standards provide the basis of patient advocacy. As an advocate, the nurse practitioner participates in health policy activities at the local, State, national and international levels.

VII. Quality Assurance and Continued Competence

Nurse practitioners recognize the importance of continued learning through:

A. Participation in quality assurance review, including the systematic, periodic review of records and treatment plans.

B. Maintenance of current knowledge by attending continuing education programs.

C. Maintenance of certification in compliance with current State law.

D. Application of standardized care guidelines in clinical practice.

VIII. Adjunct Roles of Nurse Practitioners

Nurse practitioners combine the roles of provider, mentor, educator, researcher, manager and consultant. The nurse practitioner interprets the role of the nurse practitioner to individuals, families and other professionals.

IX. Research as Basis for Practice

Nurse practitioners support research by developing clinical research questions, conducting or participating in studies, and disseminating and incorporating findings into practice.

QUALITY OF NURSE PRACTITIONER PRACTICE

Nurse practitioners (NPs) are high quality health care providers who practice in primary care, ambulatory, acute care, specialty care, and long-term care. They are registered nurses prepared with specialized advanced education and clinical competency to provide health and medical care for diverse populations in a variety of settings. A graduate degree is required for entry-level practice. The NP role was created in 1965 and over 45 years of research consistently supports the excellent outcomes and high quality of care provided by NPs. The body of evidence supports that the quality of NP care is at least equivalent to that of physician care. This paper provides a summary of a number of important research reports supporting the NP.

Avorn, J., Everitt, D.E., & Baker, M.W. (1991). The neglected medical history and therapeutic choices for abdominal pain. A nationwide study of 799 physicians and nurses. Archives of Internal Medicine, 151(4), 694–98. A sample of 501 physicians and 298 NPs participated in a study by responding to a hypothetical scenario regarding epigastric pain in a patient with endoscopic findings of diffuse gastritis. They were able to request additional information before recommending treatment. Adequate history-taking resulted in identifying use of aspirin, coffee, cigarettes, and alcohol, paired with psychosocial stress. Compared to NPs, physicians were more likely to prescribe without seeking relevant history. NPs, in contrast, asked more questions and were less likely to recommend prescription medication.

Bakerjian, D. (2008). Care of nursing home residents by advanced practice nurses: A review of the literature. Research in Gerontological Nursing, 1(3), 177–85. Bakerjian conducted and extensive review of the literature, particularly of NP-led care. She found that long-term care patients managed by NPs were less likely to have geriatric syndromes such as falls, UTIs, pressure ulcers, etc. They also had improved functional status, as well as better managed chronic conditions.

Brown, S.A. & Grimes, D.E. (1995). A meta-analysis of nurse practitioners and nurse midwives in primary care. Nursing Research, 44(6), 332–9. A meta-analysis of 38 studies comparing a total of 33 patient outcomes of NPs with those of physicians demonstrated that NP outcomes were equivalent to or greater than those of physicians. NP patients had higher levels of compliance with recommendations in studies where provider assignments were randomized and when other means to control patient risks were used. Patient satisfaction and resolution of pathological conditions were greatest for NPs. The NP and physician outcomes were equivalent on all other outcomes.

Congressional Budget Office. (1979). Physician extenders: Their current and future role in medical care delivery. Washington, DC: U.S. Government Printing Office. As early as 1979, the Congressional Budget Office reviewed findings of the numerous studies of NP performance in a variety of settings and concluded that NPs performed as well as physicians with respect to patient outcomes, proper diagnosis, management of specified medical conditions, and frequency of patient satisfaction.

Cooper, M.A., Lindsay, G.M., Kinn, S., Swann, I.J. (2002). Evaluating emergency nurse practitioner services: A randomized controlled trial. Journal of Advanced Nursing, 40(6), 771–730. A study of 199 patients randomly assigned to emergency NP-led care or physician-led care in the U.K. demonstrated the highest level of satisfaction and clinical documentation for NP care. The outcomes of recovery time, symptom level, missed work, unplanned follow-up, and missed injuries were comparable between the two groups.

Ettner, S.L., Kotlerman, J., Abdelmonem, A., Vazirani, S., Hays, R.D., Shapiro, M., et al. (2006). An alternative approach to reducing the costs of patient care? A controlled trial of the multi-disciplinary doctor-nurse practitioner (MDNP) model. Medical Decision Making, 26, 9–17. Significant cost savings were demonstrated when 1,207 patients in an academic medical center were randomized to either standard treatment or to a physician-NP model.

Horrocks, S., Anderson, E., Salisbury, C. (2002). Systematic review of whether nurse practitioners working in primary care can provide equivalent care to doctors. British Medical Journal, 324, 819–23. A systematic review of 11 randomized clinical trials and 23 observational studies identified data on outcomes of patient satisfaction, health status, cost, and/or process of care. Patient satisfaction was highest for patients seen by NPs. The health status data and quality of care indicators were too heterogeneous to allow for meta-analysis, although qualitative comparisons of the results reported showed comparable outcomes between NPs and physicians. NPs offered more advice/information, had more complete documentation, and had better communication skills than physicians. NPs spent longer time with their patients and performed a greater number of investigations than did physicians. No differences were detected in health status, prescriptions, return visits, or referrals. Equivalency in appropriateness of studies and interpretations of x-rays were identified.

Laurant, M., Reeves, D., Hermens, R., Braspenning, J., Grol, R., & Sibbald, B. (2006). Substitution of doctors by nurses in primary care. Cochrane Database of Systematic Reviews. 2006, Issue 1. This meta-analysis included 25 articles relating to 16 studies comparing outcomes of primary care nurses (nurses, NPs, clinical nurse specialists, or advance practice nurses) and physicians. The quality of care provided by nurses was as high as that of the physicians. Overall, health outcomes and outcomes such as resource utilization and cost were equivalent for nurses and physicians. The satisfaction level was higher for nurses. Studies included a range of care delivery models, with nurses providing first contact, ongoing care, and urgent care for many of the patient cohorts.

Lenz, E.R., Mundinger, M.O., Kane, R.L., Hopkins, S.C., & Lin, S.X. (2004). Primary care outcomes in patients treated by nurse practitioners or physicians: Two-year followup. Medical Care Research and Review 61(3), 332–51. The outcomes of care in the study described by Mundinger, et al. in 2000 (see below) are further described in this report including 2 years of followup data, confirming continued comparable outcomes for the two groups of patients. No differences were identified in health status, physiologic measures, satisfaction, or use of specialist, emergency room, or inpatient services. Patients assigned to physicians had more primary care visits than those assigned to NPs.

Lin, S.X., Hooker, R.S., Lens, E.R., Hopkins, S.C. (2002). Nurse practitioners and physician assistants in hospital outpatient departments, 1997–99. Nursing Economics, 20(4), 174–79. Data from the National Hospital Ambulatory Medical Care Survey (NHAMCS) were used to identify patterns of NP and PA practice styles. NPs were more likely to see patients alone and to be involved in routine examinations, as well as care directed toward wellness, health promotion, disease prevention, and health education than PAs, regardless of the setting type. In contrast, PAs were more likely to provide acute problem management and to involve another person, such as a support staff person or a physician.

Mundinger, M.O., Kane, R.L., Lenz, E.R., Totten, A.M., Tsai, W.Y., Cleary, P.O., et al. (2000). Primary care outcomes in patients treated by nurse practitioners or physicians: A randomized trial. Journal of the American Medical Association, 283(1), 59–68. The outcomes of care were measured in a study where patients were randomly assigned either to a physician or to an NP for primary care between 1995 and 1997, using patient interviews and health services utilization data. Comparable outcomes were identified, with a total of 1,316 patients. After 6 months of care, health status was equivalent for both patient groups, although patients treated for hypertension by NPs had lower diastolic values. Health service utilization was equivalent at both 6 and 12 months and patient satisfaction was equivalent following the initial visit. The only exception was that at 6 months, physicians rated higher on one component (provider attributes) of the satisfaction scale.

Newhouse, R. et al (2011). Advanced practice nurse outcomes 1999–2008: A systematic review. Nursing Economic$, 29 (5), 1–22. The outcomes of NP care were examined through a systematic review of 37 published studies, most of which compared NP outcomes with those of physicians. Outcomes included measures such as patient satisfaction, patient perceived health status, functional status, hospitalizations, ED visits, and bio-markers such as blood glucose, serum lipids, blood pressure. The authors conclude that NP patient outcomes are comparable to those of physicians.

Office of Technology Assessment. (1986). Nurse practitioners, physician assistants, and certified nurse midwives: A policy analysis. Washington DC: U.S. Government Printing Office. The Office of Technology Assessment reviewed studies comparing NP and physician practice, concluding that, "NPs appear to have better communication, counseling, and interviewing skills than physicians have:" (p.

19) and that malpractice premiums and rates supported patient satisfaction with NP care, pointing out that successful malpractice rates against NPs remained extremely rare.

Ohman-Strickland, P.A., Orzano, A.J., Hudson, S.V., Solberg, LI., DiCiccio-Bloom, B., O'Malley, D., et al. (2008). Quality of diabetes care in family medicine practices: Influence of nurse-practitioners and physician's assistants. Annals of Family Medicine, 6(1), 14–22. The authors conducted a cross-sectional study of 46 practices, measuring adherence to ADA guidelines. They reported that practices with NPs were more likely to perform better on quality measures including appropriate measurement of glycosylated hemoglobin, lips, and microalbumin levels and were more likely to be at target for lipid levels.

Prescott, P.A. & Driscoll, L. (1980). Evaluating nurse practitioner performance. Nurse Practitioner, 1(1), 28–32. The authors reviewed 26 studies comparing NP and physician care, concluding that NPs scored higher in many areas. These included: amount/depth of discussion regarding child health care, preventative health, and wellness; amount of advice, therapeutic listening, and support offered to patients; completeness of history and followup on history findings; completeness of physical examination and interviewing skills; and patient knowledge of the management plan given to them by the provider.

Roblin, D.W., Becker, R., Adams, E.K., Howard, D.H., & Roberts, M.H. (2004). Patient satisfaction with primary care: Does type of practitioner matter? Medical Care, 42(6), 606–23. A retrospective observational study of 41,209 patient satisfaction surveys randomly sampled between 1997 and 2000 for visits by pediatric and medicine departments identified higher satisfaction with NP and/or PA interactions than those with physicians, for the overall sample and by specific conditions. The only exception was for diabetes visits to the medicine practices, where the satisfaction was higher for physicians.

Sacket, D.L., Spitzer, W.0., Gent, M., & Roberts, M. (1974). The Burlington randomized trial of the nurse practitioner: Health outcomes of patients. Annals of Internal Medicine, 80(2), 137–42. A sample of 1,598 families were randomly allocated, so that two-thirds continued to receive primary care from a family physician and one-third received care from a NP. The outcomes included: mortality, physical function, emotional function, and social function. Results demonstrated comparable outcomes for patients, whether assigned to physician or to NP care. Details from the Burlington trial were also described by Spitzer, et al. (see below).

Safriet, B. J. (1992). Health care dollars and regulatory sense: The role of advanced practice nursing. Yale Journal on Regulation, 9(2). The full Summer 1992 issue of this journal was devoted to the topic of advanced practice nursing, including documenting the cost-effective and high quality care provided, and to call for eliminating regulatory restrictions on their care. Safriet summarized the OTA study concluding that NP care was equivalent to that of physicians and pointed out that 12 of the 14 studies reviewed in this report which showed differences in quality reported higher quality for NP care. Reviewing a range of data on NP productivity, patient satisfaction, and prescribing, and data on nurse midwife practice, Safriet concludes:

> "APNs are proven providers, and removing the many barriers to their practice will only increase their ability to respond to the pressing need for basic health care in our country"—(p. 487).

Spitzer, W.O., Sackett, D.L., Sibley, J.C., Roberts, M., Gent, M., Kergin, D.J., Hacket, B.D., & Olynich, A. (1974). The Burlington randomized trial of the nurse practitioner. New England Journal of Medicine, 290 (3), 252–56. This report provides further details of the Burlington trial, also described by Sackett, et al. (see above). This study involved 2,796 patients being randomly assigned to either one of two physicians or to an NP, so that one-third were assigned to NP care, from July 1971 to July 1972. At the end of the period, physical status and satisfaction were comparable between the two groups. The NP group experienced a 5 percent drop in revenue, associated with absence of billing for NP care. It was hypothesized that the ability to bill for all NP services would have resulted in an actual increased revenue of 9 percent. NPs functioned alone in 67 percent of their encounters. Clinical activities were evaluated and it was determined that 69 percent of NP management was adequate compared to 66 percent for the physicians. Prescriptions were rated adequate for 71 percent of NPs compared to 75 percent for physicians. The conclusion was that "a nurse practitioner can provide first-contact primary clinical care as safely and effectively as a family physician" (p. 255).

NURSE PRACTITIONER COST-EFFECTIVENESS

Nurse Practitioners (NPs) are a proven response to the evolving trend toward wellness and preventive health care driven by consumer demand. A solid body of evidence demonstrates that NPs have consistently proven to be cost-effective providers of high-quality care for almost 50 years. Examples of the NP cost-effectiveness research are described below.

Over three decades ago, the Office of Technology Assessment (OTA) (1981) conducted an extensive case analysis of NP practice, reporting that NPs provided equivalent or improved medical care at a lower total cost than physicians. NPs in a physician practice potentially decreased the cost of patient visits by as much as one third, particularly when seeing patients in an independent, rather than complementary, manner. A subsequent OTA analysis (1986) confirmed original findings regarding NP cost effectiveness. All later studies of NP care have found similar cost-efficiencies associated with NP practice.

The cost-effectiveness of NPs begins with their academic preparation. The American Association of Colleges of Nursing has long reported that NP preparation cost 20–25 percent that of physicians. In 2009, the total tuition cost for NP preparation was less than 1-year tuition for medical (MD or DO) preparation (AANP, 2010).

Comparable savings are associated with NP compensation. In 1981, the hourly cost of an NP was one-third to one-half that of a physician (OTA). The difference in compensation has remained unchanged for 30 years. In 2010, when the median total compensation for primary care physicians ranged from $208,658 (family) to $219,500 (internal medicine) (American Medical Group Association,2010), the mean full-time NP's total salary was $97,345, across all types of practice (American Academy of Nurse Practitioners [AANP], 2010). A study of 26 capitated primary care practices with approximately 2 million visits by 206 providers determined that the practitioner labor costs and total labor costs per visit were both lower in practices where NPs and physician assistants (PAs) were used to a greater extent (Roblin, Howard, Becker, Adams, and Roberts, 2004). When productivity measures, salaries, and costs of education are considered, NPs are cost effective providers of health services.

Based on a systematic review of 37 studies, Newhouse et al. (2011) found consistent evidence that cost-related outcomes such as length of stay, emergency visits, and hospitalizations for NP care are equivalent to those of physicians. In 2012, modeling techniques were used to predict the potential for increased NP cost-effectiveness into the future, based on prior research and data. Using Texas as the model State, Perryman (2012) analyzed the potential economic impact that would be associated with greater use of NPs and other advanced practice nurses, projecting over $16 billion in immediate savings which would increase over time.

NP cost-effectiveness is not dependent on actual practice setting and is demonstrated in primary care, acute care, and long term care settings. For instance, NPs practicing in Tennessee's state-managed managed care organization (MCO) delivered health care at 23 percent below the average cost associated with other primary care providers, achieving a 21 percent reduction in hospital inpatient rates and 24 percent lower lab utilization rates compared to physicians (Spitzer,1997). A 1-year study comparing a family practice physician-managed practice with an NP-managed practice within an MCO found that compared to the physician practice, the NP-managed practice had 43 percent of the total emergency department visits, 38 percent of the inpatient days, and 50 percent total annualized per member monthly cost (Jenkins and Torrisi,1995). Nurse managed centers (NMCs) with NP-provided care have demonstrated significant savings, less costly interventions, and fewer emergency visits and hospitalizations (Hunter, Ventura, and Keams, 1999; Coddington and Sands, 2009). A study conducted in a large HMO setting established that adding an NP to the practice could virtually double the typical panel of patients seen by a physician with a projected increase in revenue of $1.28 per member per month, or approximately $1.65 million per 100,000 enrollees annually (Burl, Bonner, and Rao, 1994).

Chenowith, Martin, Pankowski, and Raymond (2005) analyzed the health care costs associated with an innovative onsite NP practice for over 4,000 employees and their dependents, finding savings of $ .8 to 1.5 million, with a benefit-to-cost ratio of up to 15 to 1. Later, they tested two additional benefit-to-cost models using 2004–2006 data for patients receiving occupational health care from an NP demonstrating a benefit to cost ratio ranging from 2.0–8.7 to 1, depending on the method (Chenowith, Martin, Pankowski, and Raymond (2008). Time lost from work was lower for workers managed by NPs, compared to physicians, as another aspect of cost-savings (Sears, Wickizer, Franklin, Cheadie, and Berkowitz, 2007).

A number of studies have documented the cost-effectiveness of NPs in managing the health of older adults. Hummel and Prizada (1994) found that compared to the cost of physician-only teams, the cost of a physician-NP team long-term care facility were 42 percent lower for the intermediate and skilled care residents and 26 percent lower for those with long-term stays. The physician-NP teams also had significantly lower rates of emergency department transfers, shorter hospital lengths of stay, and fewer specialty visits. A 1-year retrospective study of 1,077 HMO enrollees residing in 45 long-term care settings demonstrated a $72 monthly gain per resident, compared with a $197 monthly loss for residents seen by physicians alone (Burl, Bonner, Rao, and Kan, 1998). Intrator (2004) found that residents in nursing homes with NPs were less likely to develop ambulatory care-sensitive diagnoses requiring hospitalizations. Bakerjian (2008) summarized a review of 17 studies comparing nursing home residents who are patients of NPs to others, finding lower rates of hospitalization and overall costs for the NP patients. The potential for NPs to control costs associated with the healthcare of older adults was recognized by United Health (2009), which recommended that providing NPs to manage nursing home patients could result in $166 billion healthcare savings.

NP-managed care within acute-care settings is also associated with lower costs. Chen, McNeese-Smith, Cowan, Upenieks, and Afifi (2009) found that NP-led care was associated with lower overall drug costs for inpatients. When Paez and Allen (2006) compared NP and physician management of hypercholesterolemia following revascularization, they found patients in the NP-managed group had lower drug costs, while being more likely to achieve their goals and comply with prescribed regimen.

Collaborative NP/physician management was associated with decreased length of stay and costs and higher hospital profit, with similar readmission and mortality rates (Cowan et al., 2006; Ettner et al., 2006). The introduction of an NP model in a health system's neuroscience area resulted in over $2.4 million savings the first year and a return on investment of 1,600 percent; similar savings and outcomes were demonstrated as the NP model was expanded in the system (Larkin, 2003). Boling (2009) cites an intensive short-term transitional care NP program documented by Smigieski et al. through which healthcare costs were decreased by 65 percent or more after enrollment, as well as the introduction of an NP model in a system's cardiovascular area associated with a decrease in mortality from 3.7 percent to 0.6 percent and over 9 percent decreased cost per case (from $27,037 to $24,511).

In addition to absolute cost, other factors are important to health care cost-effectiveness. These include illness prevention, health promotion, and outcomes. See Documentation of Quality of Nurse Practitioner Practice (AANP, 2013) for further discussion.

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INSTITUTE OF MEDICINE (IOM) REPORT

THE FUTURE OF NURSING: LEADING CHANGE, ADVANCING HEALTH (PP. 278–79)

Recommendation 1: Remove scope-of-practice barriers. *Advanced practice registered nurses should be able to practice to the full extent of their education and training. To achieve this goal, the committee recommends the following actions.*

For the Congress:

• Expand the Medicare program to include coverage of advanced practice registered nurse services that are within the scope of practice under applicable State law, just as physician services are now covered.

• Amend the Medicare program to authorize advanced practice registered nurses to perform admission assessments, as well as certification of patients for home health care services and for admission to hospice and skilled nursing facilities.

• Extend the increase in Medicaid reimbursement rates for primary care physicians included in the ACA to advanced practice registered nurses providing similar primary care services.

• Limit Federal funding for nursing education programs to only those programs in States that have adopted the National Council of State Boards of Nursing Model Nursing Practice Act and Model Nursing Administrative Rules (Article XVIII, Chapter 18).

For State legislatures:

• Reform scope-of-practice regulations to conform to the National Council of State Boards of Nursing Model Nursing Practice Act and Model Nursing Administrative Rules (Article XVIII, Chapter 18).

• Require third-party payers that participate in fee-for-service payment arrangements to provide direct reimbursement to advanced practice registered nurses who are practicing within their scope of practice under State law.

For the Centers for Medicare and Medicaid Services:

• Amend or clarify the requirements for hospital participation in the Medicare program to ensure that advanced practice registered nurses are eligible for clinical privileges, admitting privileges, and membership on medical staff.

For the Office of Personnel Management:

• Require insurers participating in the Federal Employees Health Benefits Program to include coverage of those services of advanced practice registered nurses that are within their scope of practice under applicable State law.

For the Federal Trade Commission and the Antitrust Division of the Department of Justice:

• Review existing and proposed State regulations concerning advanced practice registered nurses to identify those that have anticompetitive effects without contributing to the health and safety of the public. States with unduly restrictive regulations should be urged to amend them to allow advanced practice registered nurses to provide care to patients in all circumstances in which they are qualified to do so.

Senator SANDERS. Thank you very much.

Senator Murphy, I know, wanted to be here to introduce Dr. Koeppen. I believe there are seven or eight hearings taking place at this particular moment. So you will forgive members if they are a little bit stretched out.

I will introduce Dr. Koeppen, who is the founding dean of the new school of medicine at Quinnipiac University in Connecticut. He previously worked as a professor in the Departments of Medicine and Cell Biology on the faculty of the University of Connecticut School of Medicine, and then as dean for Academic Affairs.

Dr. Koeppen has served on a number of State and national education-related committees and organizations, including the Accreditation Council for Continuing Medical Education.

Dr. Koeppen, thanks so much for being with us.

STATEMENT OF BRUCE KOEPPEN, M.D., Ph.D., FOUNDING DEAN OF THE FRANK H. NETTER MD SCHOOL OF MEDICINE AT QUINNIPIAC UNIVERSITY, HAMDEN, CT

Dr. KOEPPEN. Good morning, Chairman Sanders, Ranking Member Burr, and members of the subcommittee.

Thank you for inviting Quinnipiac University to testify today about our Frank H. Netter MD School of Medicine, which is being built to train primary care physicians and to foster collaborative team-based care.

I have the privilege of serving as the founding dean of the School of Medicine and I am working with my fellow deans in the Schools of Nursing and Health Sciences to build at Quinnipiac a national

model of inter-professional education of the primary care health care team.

As you know, our country faces a significant physician shortage, especially in primary care disciplines. It is for this reason that Quinnipiac University made the decision to build its medical school. I was hired to lead the development of the medical school, and began that task on November 1, 2010. My charge was to build a medical school focused on primary care and to do this in collaboration with the Schools of Nursing and Health Sciences. I am pleased to say that this August, our charter class of 60 students will begin their studies.

We have set as a goal to have at least 50 percent of each class go into a primary care specialty. To maximize our chances of achieving this goal, we have hired faculty who support and believe in the mission. Our admissions process is holistic and targets students more likely to practice primary care.

The core curriculum has been designed to emphasize high impact diseases rather than the rare diseases that are more the domain of the subspecialist. It also emphasizes wellness, prevention, social determinants of health, and health disparities.

We have included a curricular experience we call "the medical student home." As part of this experience, each student will be paired with a primary care physician, and beginning in the fall of their first year and continuing for 3 years, the student will spend one-half day each week seeing patients with that physician. We hope this intense and long lasting relationship will reinforce for the student the importance and value of primary care and establish a meaningful student-mentor relationship.

We know that we have to address student indebtedness. That is why the University's Board of Trustees has established "the primary care fellowship." The goal of this program is to offer a fellowship to any student we admit who says they want a career in a primary care discipline. The fellowship consists of a full tuition and fee waiver for all 4 years of medical school. We will track them through their residency training and into practice. If they practice primary care medicine for 4 years, all of the waived tuition and fees are forgiven. If at any point in their training they change their mind, the waiver money is converted into a loan they must repay.

Despite what we do, I still fear that we may fall short of our goal. There are several factors that can discourage a student from choosing a career in primary care. As you have heard today, most residency training programs are embedded in hospitals, the very site where subspecialty care is provided. Primary care takes place outside of the hospital.

The teaching health center program is a good first step to change this model. It trains primary care residents in a primary care setting. However, it is not enough. If we are to meet the demand for services, there needs to be an expansion of federally funded residency programs, and these should be weighted toward primary care specialties, and take place in appropriate ambulatory settings.

We must also embrace team medicine. Patient-centered medical homes and accountable care organizations are all about team medicine. We need to abandon the traditional model of the physician as

the captain of the ship who directs the crew, and adopt the model of a NASCAR pit crew.

The pit crew is a team of highly skilled individuals that bring their expertise to the care of the car. Now, replace the car with a patient and the pit crew with a team that consists of physicians, nurse practitioners, physician assistants, physical and occupational therapists, social workers, mental health counselors, and nutritionists. However, simply assembling the team is not enough. You have to let each member of that team practice at the top of their training, not just the top of their license. What do I mean?

The members of the health care team are often trained at a higher level than the scope of practice laws in their State allow. If every member of the team can practice at the top of their training, then we have an exciting and fulfilling work environment for all. More importantly, it expands access and each patient will get better coordinated and better quality care. Done right, it will also lower total health care expenditures by keeping patients well longer.

At Quinnipiac University, we believe we have the right environment to train the primary care health care team of the future, one that can function as I have just described. It will not be easy and we will need help, but we must succeed.

Thank you for inviting me to testify, and thank you for your leadership in finding ways to successfully create the primary care workforce this country so desperately needs.

[The prepared statement of Dr. Koeppen follows:]

PREPARED STATEMENT OF BRUCE M. KOEPPEN, M.D., PH.D.

Good morning Chairman Sanders, Ranking Member Burr and members of the subcommittee, thank you for inviting Quinnipiac University to testify today about our Frank H. Netter MD School of Medicine. The principal mission of the School of Medicine is to train primary care physicians and to foster collaborative, team-based care. Our mission is to be the national model of interprofessional health professions education.

I am Bruce Koeppen, founding Dean of the Medical School. I have been in academic medicine, and involved in medical student education, for more than 30 years. Prior to assuming my current position at Quinnipiac University I was on the faculty of the University of Connecticut School of Medicine. The School of Medicine will open its doors in August 2013. Our charter class will have 60 students, and over a 3-year period our class size will increase to 125. When at full capacity we will be the largest medical school in Connecticut.

We must address our Nation's growing shortage of primary care physicians and other primary care health professionals. We also must restructure our health care system to advance models that provide high quality, cost-effective and patient-centered primary care. I am pleased that Quinnipiac University is at the forefront of both of these efforts.

BACKGROUND

The Center for Work Force Studies of the Association of American Medical Colleges (AAMC) has projected a significant shortage of physicians.

Year	Physician supply (all specialties)	Physician demand (all specialties)	Physician shortage (all specialties)
2010	709,700	723,400	13,700
2015	735,600	798,500	62,900
2020	759,800	851,300	91,500
2025	785,400	916,000	130,600

While this physician shortage is across all specialties, it is most significant in the primary care disciplines of Family Medicine, General Internal Medicine and General Pediatrics. According to the AAMC analysis the shortage of primary care physicians in 2020 will be 45,400—and in 2025 this increases to 65,800.

The causes for the overall physician shortage are multifactorial, and include the movement of Baby Boomers into the Medicare system (10,000/day); a group where 50 percent are already diagnosed with two or more chronic medical conditions. Added to this will be more than 30 million individuals who will obtain health insurance through the Affordable Care Act.

The reasons for the significant shortage of primary care physicians are also complex. Medical students are increasingly choosing non-primary care specialties, and the reasons include perceptions that it is less prestigious, and more demanding in terms of breadth of knowledge and in life style. Also, the hard reality is that among the various medical specialties, primary care specialties are at the bottom of the income ladder.

The provision of high quality patient-centered care is essential to the health of our citizens, and especially for the Nation to bend the health care expenditure curve. Doing more of the same in terms of medical student education will simply not get us to where we, as a Nation, and a health care system, need be. Simply put—What got us here . . . Won't get us there! We need new ideas and new approaches.

The new medical schools being developed in our Nation offer a special opportunity to positively affect medical student education. We can innovate in ways that might be difficult in established medical schools. The new schools have the opportunity to define a mission, and then build to that mission from faculty recruitment, design of the space, and selection of the students. This is much easier than changing an existing institutional culture.

Many new medical schools are not focused on primary care; at Quinnipiac University, it is our mission. We believe the provision of patient-centered primary care should be provided by a team of care givers, each of whom has the ability to practice at the top of their training. Quinnipiac University has committed itself to educating and training the primary care team of the future. We aim to change the traditional model, where the physician is viewed as the captain of the ship giving orders to the crew, to a model more akin to a NASCAR pit crew. Pit crews are highly efficient and effective teams, comprised of individuals with unique knowledge and expertise, all focused on the care of the racecar. We envision the primary care team in the same way; a team of highly trained and skilled professionals each bringing their expertise to the care of the patient.

QUINNIPIAC UNIVERSITY

Quinnipiac University traces its roots to 1929 when the Connecticut College of Commerce was founded in New Haven, CT. In 1951, the name was changed to Quinnipiac College, and then to Quinnipiac University in 2000. Today the university has established Schools of Business, Communications, Education, Health Sciences, Law, Nursing, and a College of Arts and Sciences, on three campuses located in Hamden and North Haven, CT.

The School of Medicine resides on the 104-acre North Haven campus, housing the graduate programs in the School of Health Sciences, the School of Education, and the School of Nursing. Our Law School will relocate to the campus in 2014.

Quinnipiac University began programs in allied health in the 1950s, formally established the School of Health Sciences in 1971, and today offers a wide range of undergraduate and graduate programs.

Bachelor of Science
- Athletic Training
- Biomedical Sciences
- Diagnostic Imaging
- Health and Health Sciences
- Microbiology/Molecular biology
- Premedical Studies

Master of Science
- Biomedical Sciences
- Cardiovascular Perfusion
- Medical Laboratory Sciences
- Pathologists' Assistant
- Physician Assistant
- Radiologist Assistant
- Occupational Therapy

Anesthesia Assistant
The School of Nursing, and offers the following degree programs.
Bachelor of Science in Nursing (BSN)
Masters of Science in Nursing (MSN)
Doctor of Nursing Practice (DNP)

The School of Nursing is developing a nurse anesthetist program. In addition, master's degree programs in public health and social work are at an early stage of development.

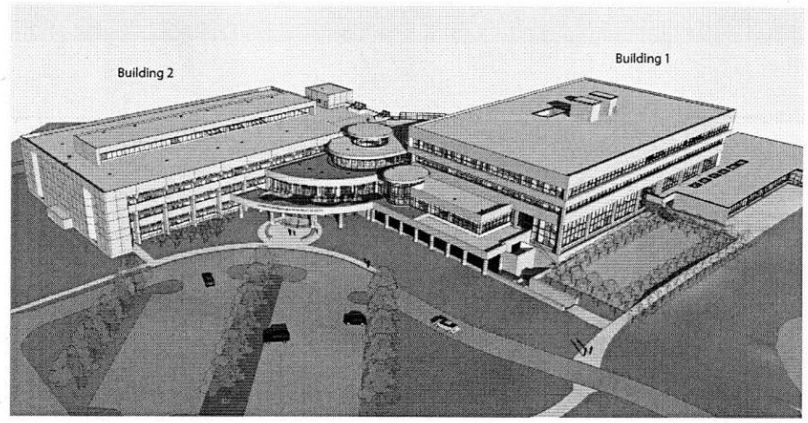
Given the collective strength of the health professions programs, Quinnipiac University saw the development of a medical school as an important addition to the existing educational programs.

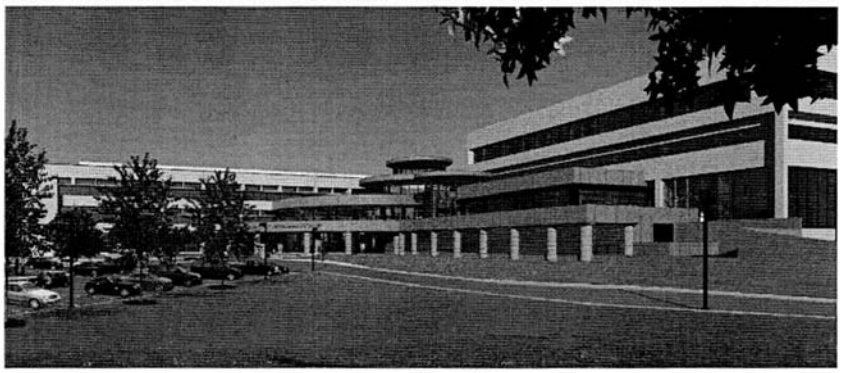
SCHOOL OF MEDICINE

The School of Medicine has an emphasis on primary care and the training of the physician of the future as a member of an integrated care team.

Our Frank H. Netter MD School of Medicine will be a model for educating diverse, patient-centered physicians who are partners and leaders in an inter-professional primary care workforce, responsive to healthcare needs in the communities they serve. The School of Medicine embodies the University's commitment to its core values of excellence, student-oriented education, and a strong sense of community. Accordingly, the School of Medicine values partnerships among our community that provide students with learning and service opportunities that also improve the health of the community. Beyond the local community, the School of Medicine works in collaboration with our global health program to promote primary care, patient education, community medicine and public health through international partnerships.

To facilitate our efforts around inter-professionalism, we have designed and are building the Center for Medicine, Nursing, and Health Sciences. This 250,000 sf facility provides state-of-the-art student-centered educational space for all of the health professions students at Quinnipiac University.





We have also established a Center for Interprofessional Health Education, which serves as a think tank and coordinating point for identifying best practices for interprofessional education.

ACHIEVING OUR MISSION

To achieve our mission relative to primary care we have developed the following strategies:

- Faculty that support the mission
- Holistic student admissions process
- Curricular content and experiences related to primary care
- Positive role models in primary care
- Targeted financial aid

Faculty: Our school has a single basic science department focused on medical student education, rather than the typical spectrum of basic science departments seen at other schools, which were established to support research programs more so than medical student education. All basic science faculty were hired for their teaching expertise, rather than a research area of focus. They were also only hired if they supported our mission.

Student Admissions: We have adopted a holistic admissions process. We have set a threshold for GPA and MCAT score, but the decision to accept or not a student for admission is based on how the student is judged in the following areas.

- Awareness of the school's primary care mission and vision
- Maturity
- Motivation
- Intellectual curiosity
- Interpersonal skills and non-verbal expression

Curriculum and Role Models: The core curriculum has been designed to emphasize high impact diseases, rather than the rare diseases that are more the domain of the subspecialists. It also emphasizes wellness, prevention, social determinants of health, and health disparities. We have added two unique components. The first is what we call the Medical Student Home (MeSH). As part of this experience, beginning in the fall of their first year, each student is placed in the office of a primary care physician, and they go to that office one half-day each week for the next 3 years to see patients with the physician. This gives them a real life perspective on the provision of continuity of care, and allows them to see how chronic disease is managed. We hope these physicians serve as positive role models and mentors.

We have also included in our curriculum a concentration and capstone experience, which we believe will help our student acquire the knowledge and skills in related professions, which they can apply in their roles as physicians. The areas of concentration we have developed involve the other schools at Quinnipiac, and include.

- Global, Public, and Community Health (Albert Schweitzer Institute)
- Health Policy Advocacy (School of Law)
- Health Management and Leadership (School of Business)
- Health Communication (School of Communication)
- Medical Education (School of Education)
- Medical Humanities (College of Arts and Sciences)
- Translational, Clinical and Basic Science Research

Financial Aid: We believe that limiting the indebtedness of students tracking into primary care is important. As a result, the Board of Trustees has established the "Primary Care Fellowship". When fully funded, any student we admit, who says they intend to have a career in primary care medicine, will be offered one of these fellowships. The fellowship consists of a full tuition and fee waiver for all 4 years of medical school. The student will sign a contract that stipulates that they must practice primary care for at least 4 years after they complete their residency training. If they do meet that commitment the waiver funds are forgiven. However, if they decide on a career in a subspecialty at any point in their training (medical school or residency), or do not practice primary care, the waived funds become a loan that must be repaid.

We do not know how successful our approach will be, but we have set as a goal to have at least 50 percent of each graduating class become primary care clinicians.

CHALLENGES AND POTENTIAL SOLUTIONS

Residency Training: Medical schools can only do so much relative to building the primary care physician workforce, since every graduate must complete a residency program in order practice medicine. As currently organized, residency training typically takes place in tertiary care hospitals, which by definition is subspecialty care. Resident physicians may start out on a path to a primary care career, but may be diverted during the course of their residency training. An effort must be made to embed residency programs in the settings were high quality primary care is being provided. The "Teaching Health Center" program included in the Affordable Care Act is a good first step. It allows Community Health Centers to establish residency programs, to train physicians who would then stay on to practice primary care in that setting. Unfortunately it is only a 3-year grant funded program. To be truly successful I believe these need durable funding similar to what is currently provided to the majority of hospital-based residency programs. I would also advocate to expand the number of federally funded residency positions in the country, and weight those toward primary care disciplines. This is critical if we are to address the looming primary care physician shortage.

Perceptions: Students often have the impression that the practice of primary care medicine is boring and not challenging. That it is just endless numbers of patients with colds, high blood pressure, etc., and that only the specialists see the interesting stuff. While there may be some truth to this impression, the real truth is those interesting patients often see the specialist by a referral from the primary care physician. More importantly, I believe establishing a primary care team changes this completely. If patient centered medical homes and accountable care organizations establish primary care teams that consist of physicians, nurse practitioners, physician assistants, occupational and physical therapists, nutritionists, behavior health specialists, and States allow these individuals to practice at the top of their training, rather than at the top of their license, then we have an exciting and fulfilling work environment for all. More importantly, the patient will get better coordinated, and better quality of care. I also believe it will lower total health care expenditures, by keeping patients well longer, and thus out of the hospital.

Thank you for inviting me to testify and thank you for your leadership in finding ways to successfully create the primary care workforce this country so desperately needs.

Senator SANDERS. Dr. Koeppen, thanks so much.

Let me just thank our panelists, not only for being here this morning, but for their life's work. Without exception, all of you are doing work that is enormously important to our country.

Let me begin by asking, in a sense, a dumb bunny question, and that is, as a Nation, we spend almost twice as much per capita on health care as do the people of any other Nation, and yet our health care outcomes are not necessarily any better. In some cases, they are worse.

We have 70 percent of our physicians who are specialists; 30 percent, roughly speaking, are in primary health care. The rest of the world, generally speaking, is exactly the opposite: 70 percent primary, 30 percent specialists.

What is the relationship between the fact that we have so many specialists compared to the rest of the world, and we spend twice as much per capita on health care? Is there a relationship?

Dr. Rust, do you want to start?

Dr. RUST. Sure, and the answer is yes. And the answer is yes because you can look at the bottom line outcomes.

And just as Dr. Starfield did earlier in her career looking at the number of subspecialists to primary care ratios, those sorts of things, and tie them to both health outcomes and to health care costs, but look also at how we reimburse specialists.

We reimburse people on piecework. We reimburse people for procedures, and high-cost procedures disproportionate to the way we reimburse people who spend time with patients in relationship, helping coach them to better health.

So when you pay people to do a significant number of procedures, when you train people to do hospital-based care and that is the environment in which they are comfortable, we tend to get the most expensive forms of care done exquisitely well in this country, but we do it way too much.

And if you are able to move upstream, just as we saw with the 30 percent reduction in emergency room visits, by putting a community health center in that community. If we treat the high blood pressure, then the patient does not have a stroke. Look at what we have saved by doing that. If we treat the patient with diabetes and help them self-manage their condition so that they don't have a leg amputation, and so forth.

So having more primary care allows you to practice in the most cost effective way. And one way to think about it is to get people the right care, in the right setting, at the right time.

Senator SANDERS. In other words, what you are saying is when we emphasize primary care, we are treating people when they need to be treated. We are keeping them out of the emergency room. We are keeping them out of the hospital if they get sicker than they otherwise should have. And we are saving substantial sums of money.

Dr. RUST. Absolutely.

Senator SANDERS. OK. Let me ask Mr. Hawkins. We have made some progress in terms of expanding community health centers around the country. If we located a community health center in every community in rural or urban America that actually is medically underserved and needed it, that is going to cost us a bit of change. No question about that.

But at the end of the day, picking up on Dr. Rust's point, if you make health care available to those people who need it, who then do not use an emergency room, who do not get unnecessarily sick, where you do disease prevention you, in fact, end up or not, saving money for the whole health care system.

Mr. HAWKINS. That is absolutely true, Mr. Chairman. We have already seen studies that show that even at their current level, community health centers save the health care system, taxpayers, private payers, all payers, between $20 and $25 billion a year for the care that they provide today to the 22 million people.

There are 60 million Americans who do not have a regular source of primary care. I was just going to add my two cents to what Dr.

Rust said. The flipside of the problem of having too many specialists is that we do not have enough primary care providers. And therefore, those who could use that care cannot find it and end up in the emergency room.

It is a double whammy: too much spent on specialty care, not enough availability of primary care. So folks end up in the emergency room anyhow for what could have been treated in a primary care setting.

As I noted, 60 million people today without a regular source of primary care. We look less at communities than at populations, and if we could grow the health center program to serve those 60 million people, roughly 3 times the number of people that they serve today, then it stands to reason that the savings would be trebled as well.

Senator SANDERS. OK. Let me ask—we are going to have another round as well—so let me just ask Dr. Cunningham, I think, an interesting question.

One of the points you made is that your medical school is far less expansive than the national average.

How do you do that?

Dr. CUNNINGHAM. Chairman Sanders, we have created a group of missioners who actually have figured out that with their patient's care service, sending bills to patients, they can actually support the mission of our school.

Somewhere between 70 and 75 percent of our budget is driven by our physicians' practice in Greenville. Only 20 percent of our medical school's budget is supported by the State Government. The rest comes from our tuition, which is, as I mentioned, the lowest in the Nation, tuition and fees, the lowest in the Nation at the moment.

And then we have local philanthropists. The School is named for a family of successful businessmen called the Brody's, and we have Brody scholarships. We have a number of other scholarships that we use to supplement our budget so that we can actually have affordable tuition and fees for our students.

Senator SANDERS. Thanks very much.

Senator Burr.

Senator BURR. Thank you, Mr. Chairman.

I find it a great loss that Ms. Spitzgo did not stick around to hear these witnesses because, I think, this is a fascinating opportunity to hear how different areas are succeeding, growing, exploring new areas that, I think, are absolutely crucial to somebody who has the responsibility to run programs that directly impact it.

I am reminded, as I hear some of you respond, that this is not as much about one single type of delivery. It is not all about community health center. It is not all about this. But it is about a medical home model.

It is about whether a person is in an un-served or underserved area, urban, maybe it is in one of the best health care delivery markets in the country. But if the perception is not that I need to go in for preventative care, then the likelihood is they end up as an emergency room patient just simply because they did not have that connection, that relationship to get in.

Paul, let me ask you, if you will, can you share with us a few more details about East Carolina's embedding students in the most rural parts and the communities that you serve with different primary care training programs?

Dr. CUNNINGHAM. Thank you, Senator.

I think you have really focused on the complexity of creating the rural health care force that is going to serve the communities in the rural areas of this State.

First of all, you recruit from the State of North Carolina and you recruit students from rural communities. They already have a propensity to want to return to those communities. Their families have lived there for generations, and that tends to be one of the retention formulas.

The other thing is you then send them back into those communities to serve as medical students, and they develop a familiarity with the system, with the people. I like to say that they fall in love with their patients.

There is more to motivating a physician than just the money. Some of that is their passion for the patients that they actually serve. So that, if you would, is a trick. We actually send them back to fall in love with the rural communities that they will need to serve in the future.

May I mention a couple of thoughts that came up in the prior questioning? I am a general surgeon by training and, in fact, I consider that a prestigious discipline. But through education, we have recognized that family medicine is also a prestigious subspecialty as well. And so, it is a matter of reformatting our rhetoric in terms of supporting that as an initiative.

Senator BURR. Great.

Dr. Rust, in your testimony you stated, and I quote, "Medical school research and medical school training has too often become disconnected from the real world, community based primary care clinical practice, and disconnected from training the doctors we most need for the communities where they are most needed."

What suggestions would you offer on how to address this concern that they are not tied to or contingent upon Federal funding?

Dr. RUST. I am sorry. You would like suggestions that are unrelated to the Federal funding mechanism.

Senator BURR. How this concern that we are not tied to? Yes.

Dr. RUST. There are a number of pressures in the environment that push medical schools in the direction of subspecialty care.

We have heard about how clinical revenues are supporting an entire medical school at a 70 to 75 percent level. It is a lot easier to generate those clinical revenues with subspecialists than it is with primary care clinicians.

So there is often a drift, even in medical schools that start with a charter focused on primary care, there is some sense of mission drift in many medical schools—and Brody being the wonderful exception—toward more subspecialty care models, toward more bench research and so forth.

What I was suggesting in that testimony is that we do need to make a conscious, proactive effort to make sure that we are getting a return on the investment for the medical education dollars, whether they be State dollars or Federal dollars or other dollars

that go into our medical schools. And that return on investment measured in producing the doctors that America actually needs and producing the other clinicians that America actually needs.

Are they going to primary care? Are they going into underserved communities? Are they able to practice on teams where they respect and honor the high level performance of all the other members of that team? Do they represent the diversity of the American people?

And if we are able to hold medical schools accountable in some way to producing that return on our investment, whether it be a Federal investment, a State investment, or whether it be the investment of patient care dollars that are supporting them.

Senator BURR. It had not been that long since you went through medical school.

Dr. RUST. Yes, sir.

Senator BURR. Follow the current student as he completes his undergraduate degree, picks the medical school, goes to the bank, and the first word out of the loan officer's mouth is, "What specialty are you going into?" And as soon as you say, "Primary care," the bank tells you about a neat bank down the street that is also open for business, because they look at the reimbursement and see the earnings capabilities of a primary care doctor.

In the average medical school today, the payback of a student loan from medical school looks like the amortization for a home mortgage.

Dr. RUST. Absolutely.

Senator BURR. I think you alluded to it. You said that it is influenced by the reimbursement system.

Dr. RUST. Right.

Senator BURR. Now share with me, for a moment, I am going to go outside the box just a little bit.

Dr. RUST. Sure.

Senator BURR. Should we find it odd that the largest system that we have, Medicare, pays on a per incident basis? I mean, you go in, you get something, they pay the bill. You get something else, they pay the bill.

Dr. RUST. That's right.

Senator BURR. It is actually the private sector risk-takers today that are actually investing their own dollars to bring clinicians in to work with chronically ill patients because they recognize the fact that if they can keep them well, they cost less money. They are less risky.

How do we get this model changed?

Dr. RUST. From your lips to God's ear, Senator, I would love to see that happen. I would say that there are innovations both in the private and the public sector.

In that space, we published a study on Medicaid disease management program from our State that we participated in that saved the State over $100 million in its first year of operation based on reducing the increasing cost line for Medicaid patients with serious chronic disease and multi-morbidity, multiple chronic diseases at the same time. So whether it is private sector or public sector, I think the key is, are you getting the return on investment?

And it seems clear to me that you have hit on the key point, which is, if you pay for volume, you get volume. If we pay for health outcomes, what will happen then is teams will begin to reconfigure themselves and get pretty smart about the fact that they need other people on teams besides doctors. Doctors, and nurse practitioners, and PA's, and psychologists, and social workers need to work together.

We need to blur the boundaries of the clinic wall because people do not live in our patient centered medical homes. They are free range humans who live out in the countryside and do all manner of things. Community health workers, and navigators, and other individuals will become part of those teams.

But if the payment is based on achieving optimal health outcomes for a set community, then we are in a much better position to make the right investments. There is enough money in the game. The amounts we are spending on health care are just disproportionate to what other countries find the need to spend.

But right now, if a community health center invests in, for example, extra expenditures to invest in psychologists and mental health integration with primary care, or social workers to address some of the social complexities of their patients, they will not reap the benefit for that. The return on investment will come to the hospital, which has less indigent care admissions, uninsured admissions, the less uninsured emergency room visits.

This disconnect between those who are able to influence the outcomes and where investments can be really strategic and where small investments can make a big difference, is completely disconnected from who will reap the benefit of that return on investment, right now, in the current system.

Senator SANDERS. OK. Let me continue down the line here.

Ms. Wachtel, there is no question that nurse practitioners play an enormously important role in the provision of primary health care.

Briefly describe the role that they are playing and what you would like to see them play in the future.

Ms. WACHTEL. I have an example of a health care shortage area in the southern part of the State. This will be an example of what nurse practitioners do in the State of Vermont.

Over the past 6 years, 12 primary care physicians left that area and most of the patients were ending up in the emergency room. There were close to 9,000 patients that did not have any primary care provider.

She opened a practice in March of last year. Since opening her doors, she's provided comprehensive primary health care to people with very complex health needs. Two-thousand patient visits in the first year that she opened her doors.

She is now so busy that she is looking to hire another nurse practitioner to help with this because they are still underserved. That is one of our biggest underserved areas.

If those patients were not seeing this nurse practitioner, they would be getting their care in the emergency rooms like we have been discussing. Or, they would not be going to the emergency rooms and their diseases, their medical problems would progress to

the point where the cost of taking care of them would be so much higher.

The only barriers that, in Vermont, because we are a full practice authority State, really the only barriers left are the barriers that I mentioned earlier in my testimony. So that there are still those barriers left all over the country.

And in areas where you have discussed that nurse practitioners do not have full practice authority, they can still practice with the same level of competency as all nurse practitioners can. But it is their patients' ability to access their care which are creating the barriers.

So removing those barriers as well, allowing nurse practitioners in this entire country to practice at the full scope of their education would bring the models that we are being successful with in Vermont, which is patient-centered, team-based nurse practitioners and others leading those teams to provide patients with excellent primary care.

And if you read the outcome studies, you will see that nurse practitioners are providing very high quality care with cost savings.

Senator SANDERS. Dr. Koeppen, congratulations on your endeavor. It is extraordinary. Your hope is to have 50 percent of your graduates going into primary care, which is much, much higher than the national average. Let me ask you a hard question; others can pick up on it.

We have medical schools out there that receive substantial sums of money from Medicare as part of the Graduate Medical Education program. We spend about $10 billion a year on that program, who are graduating almost no primary care physicians.

What do you think we should do about that?

Dr. KOEPPEN. I talk to a lot of different people about the challenges of building a brand new medical school from scratch. And truthfully, what worries me most is not what we are able to create at the medical school, but it is where our graduates will go.

It is that GME environment that, I think despite all of our best efforts, can undo a lot of what we have tried to do during medical school.

As I noted in my testimony, most Graduate Medical Education is embedded in a hospital full of specialists and a graduate entering into that is going to be pulled, actively recruited in many cases, into the subspecialties.

The other thing that is happening is the Nation is trying to increase the number of U.S. medical school graduates through increasing class size of established schools and the founding of new medical schools. But there has been no substantial increase in the number of residency slots.

So all we are heading for is a situation where a U.S. medical school graduate will not be able to get a residency position because they will not exist, and therefore cannot practice medicine.

Senator SANDERS. Medicare is spending $10 billion a year for resident training. We, in many ways, do not even know what they are producing with that $10 billion.

Who wants to, Dr. Rust or Dr. Cunningham, do you want to jump in on that one?

Dr. CUNNINGHAM. Sure, sir. Our hospital is an anomaly in that it is close to a 1,000 bed hospital in a town of 90,000 people. That is a very strange situation.

It also is what is called 50 percent over the cap. So it pays for half of the residents that are training at that facility. We, at the Medical School, actually contribute our share to the training of those medical students as well, the residents in the hospital, the GME component.

I believe there is a statistic that is important. If a student goes through our medical school and does their residency within the hospital, 75 percent of those graduates stay in North Carolina, and we know that close to 60 percent of our graduates remain in primary care for the duration. So I believe that is an insight.

The training center needs to be embedded in a rural community for it to work.

Senator SANDERS. OK.

Dr. Rust, should I be concerned, should we be concerned that we spend $10 billion a year providing support to training hospitals, and we don't even know who they are graduating? We do not even have that basic information let alone demanding that they do more in primary care.

Dr. RUST. Right. I think we have some data on that, but what you are referring to, I think, is the accountability metrics to be able to say that we expect the production to, in some way, match the need, whether it is geographic distribution or whether it is specialty distribution. Now, I will give you a specific example.

Internal medicine residency training used to be considered a primary care discipline. Some medical schools when they report how many of their students choose primary care residencies will count internal medicine residencies among them.

But more than 70 percent of those internal medicine residents are going to go into a subspecialty fellowship. Another 10 to 20 percent are going to now choose hospitalist medicine as opposed to outpatient primary care for their careers. You are left with 10 to 15 percent of the production of those residency programs, those so-called primary care residency programs, are actually going to become primary care residents.

So there is this huge pool and if you were able to address that one thing aggressively and quickly, within 2 to 3 years, you have this huge pool of individuals who are going to make a choice between pursuing further subspecialty training or staying in a primary care discipline in which they have been trained.

We have the opportunity to move the needle on that one fairly quickly if we were aggressive about holding our GME funding sources, and the people they fund, to accountability for training more of the clinicians that America needs.

Ms. WACHTEL. Excuse me, Senator. Can I just add something to that?

Senator SANDERS. Yes.

Ms. WACHTEL. I think that it is really important that what we have been talking about is in terms of getting primary care providers out there. And even though the vast majority of nurse practitioners that graduate go into primary care, there are long waiting lists to get into nurse practitioner programs.

Senator SANDERS. Right.

Ms. WACHTEL. And I think that channeling some of that funding to faculty.

Senator SANDERS. Right.

Ms. WACHTEL. Faculty loan repayment is incredibly important and channeling some of that funding to nurse-managed health centers where we can precept medical students, as well as nurse practitioner students, as well as nurses, because part of the problem is we don't have the preceptor sites either. And that is true for medical schools as well as nurse practitioner programs.

Senator SANDERS. Thank you.

Ms. WACHTEL. Thank you.

Senator BURR. Mr. Chairman, I just want to give Dr. Cunningham a last opportunity.

If there is a take away from what you have learned in the ECU model that has been successful in North Carolina, and could be replicated elsewhere in the country, share that with us.

Dr. CUNNINGHAM. Sir, it is the focus on the mission. The mission that we were given early on was to create primary care physicians, and we have never deviated. We have never been distracted by the financial exigencies.

We actually do not have many of the lucrative subspecialties as a part of the Medical School. We have no orthopedics, no anesthesia, no urology, no ENT in the Medical School. So we were created to do exactly what we produced.

So if you create a system that is designed to do something, it is likely to do that, and that is exactly what we have done for the 40 years of our existence.

Senator BURR. Mr. Chairman, I want to thank you again for this hearing and thank our witnesses.

I do want to just say I think it is very dangerous that Congress look at ways that we can manipulate more primary care doctors. I remember back over my 19 years, so far, here. I think twice we have actually paid schools to decrease the number of students in their program, and then we have put those spaces back in there. And the fact is we are headed on a demographic formula that we are going to have a shortage, and I cannot tell you in which specialties they are going to be in.

I can with some certainty tell you the shortage in primary care is going to continue because I can see the funnel, and the need, and know that there are not enough coming in. But it is also going to be in other areas.

We are in a much better position if we let institutions determine how to handle this and we provide the support that allows the flexibility of institutions to focus. And if they want to do as East Carolina did, where they attract in a very small area of discipline, and they stay managed in that, that's great. Or as we startup new ones, we look at where the mission of that institution should be.

I think at the end of the day, we have to continue to produce the professionals at all levels to make sure that we can meet the needs of the American people.

I thank the Chair.

Senator SANDERS. Thank you, Senator Burr. Let me just ask my final question.

According to HRSA, we need 16,000 more primary care practitioners to meet the needs that exist today and that number is going to go way up in the years to follow. And this problem is especially compounded by the fact that as a result of the ACA, we will have another 30 million Americans who will have health insurance, who have the, at least theoretically, the opportunity to walk-in to a doctor's office.

How serious is that crisis?

Mr. HAWKINS. Mr. Chairman, it is dead serious. The experience of Massachusetts alone shows us and tells us that when we extend coverage to 30 million additional individuals, many of whom are not well today, and are holding off, and have held off on seeking care oftentimes until their illness is so bad, that they really do need very costly and complex care.

If we give insurance cards, when we give insurance cards to those 30 million people, there is going to be such a huge surge. And in places where there is a large uninsured population, States like Texas, for example, today, that the resultant stress on the health care system is going to be all but overwhelming.

I think that is where it is imperative that the health care system very quickly focus on—and I am looking at Ms. Wachtel here—because it is the training of the nurse practitioners. You guys have got to get off this bachelor's degree, 3-year requirement. I remember when we used to train them for 2 years of which 15 months was, or 9 months, at least, was a practicum at my health center back in the 1970s and 1980s.

But we need to train more nurse practitioners, physician assistants, nurse midwives who can be trained in much less time to be part of a team. I believe that really team practice is what works. We need to move training as we have talked about and it is being done, and there are many, many more community health centers and other community-based organizations that are ready to engage, and in partnership with the residency programs at the medical schools in the training of community-based primary care physicians of the future.

If we engage in those couple of practices, we are still going to have a problem come next year. But we can slowly ease that problem and create a workforce that is more in tune with the needs of the population that it is there to serve.

Senator SANDERS. Dr. Cunningham.

Dr. CUNNINGHAM. Sir, we are not waiting for it to happen. We are creating innovation as we speak. Necessity is the mother of invention.

We have a project called the PROSPER Project, which is attempting to turn the spigot off upstream. It involves the faith community. We are partnering with our community college system to create a curriculum to teach people in the community, so that we can mitigate some of this expansion of health care need in the future.

We are also collaborating with the military, with the V.A. system in our region. We are the third largest area in the country where military dependents live, and therefore we are going all out everywhere to begin to mitigate this. The fastest growing component of

our medical practice is the emergency department at this point. So there is pent-up need and it is coming at us right now.

Senator SANDERS. Dr. Rust.

Dr. RUST. The first thing I would like to say is that the individuals who will be coming onto the insurance rolls are already in the health care system. But they are using it in a highly inefficient way because they are trying to defer care, and ending up with the sicker care and the more downstream and more expensive forms of care.

Some of this is an issue of reallocation of resources, of preferentially shifting funds toward primary care and prevention, having your hospital-based care in these accountable care organizations and other models. Where people are looking at: what is the best way to get to a community health outcome? Not, what is the best way to fill up my hospital beds? And, what is the best way to generate procedure-based income?

So I think as we begin to move to those other payment models, you can get to a more efficient system, one that does not require every single contact with a patient to be a face-to-face visit in the exam room because that is what makes a billable visit.

If we are paying for outcomes rather than for volume, then what we find is that with the appropriate teams in the primary care setting, as well as in partnership with hospitals and specialists, we can develop cohesive systems of care that are more efficient, that can take care of larger panels of patients, and achieve better outcomes without necessarily having to have primary clinicians running from exam room to exam room all day long trying to generate the billable visits on the hamster wheel of current primary care.

Senator SANDERS. All right.

With that, let me again, thank you all not only for being here today, but for the great work that you are doing.

And with that, this hearing is ended.

[Additional material follows.]

ADDITIONAL MATERIAL

PREPARED STATEMENT OF RAY E. STOWERS, DO

Chairman Sanders, Ranking Member Burr, and members of the subcommittee, on behalf of the American Osteopathic Association (AOA), thank you for the opportunity to provide a statement for the record on Successful Primary Care Programs: Creating the Workforce We Need.

THE OSTEOPATHIC PROFESSION AND PRIMARY CARE

The American Osteopathic Association (AOA) proudly represents its professional family of more than 100,000 osteopathic physicians (DOs) and osteopathic medical students; promotes public health; encourages scientific research; serves as the primary certifying body for DOs; is the accrediting agency for osteopathic medical schools; and has Federal authority to accredit hospitals and other health care facilities.

Osteopathic medicine's roots are in primary care medicine, and today, approximately 63 percent of osteopathic physicians are practicing in primary care specialties:

Self-Identified DO Practice Specialties

Year	Family and general practice		General internal medicine		Pediatrics and adolescent medicine		Obstetrics		Osteopathic manipulative medicine (OMM)		Other specialty	
	DOs	%	DOs	%	DOs	%	DOs	%	DOs	%	DOs	%
2012	22,363	37.9	7,618	12.9	3,373	5.7	2,727	4.6	946	1.6	22,003	37.3

OSTEOPATHIC TRAINING

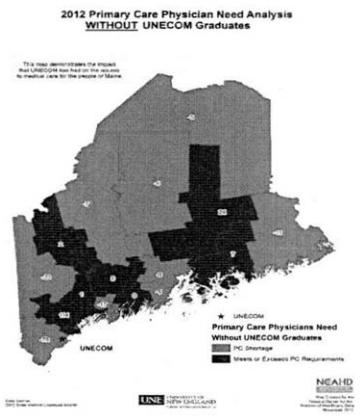
While we fully support subspecialty practice, the osteopathic medical profession is designed to instill in students the rewards of a career in primary care medicine. As a result, our schools produce a large number of primary care physicians. The 2013 *U.S. News & World Report* ranking of medical schools reveals that six of the top seven medical schools with the highest percentage of graduates who enter primary care residencies are colleges of osteopathic medicine:

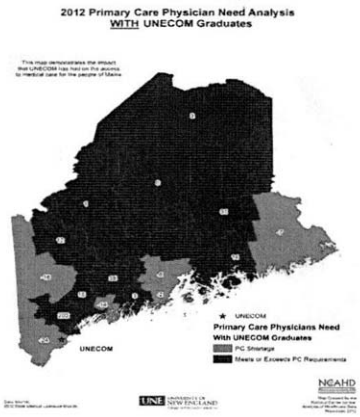
	Graduates entering primary care specialties (2009–11 average) [In percent]
Michigan State University (College of Osteopathic Medicine)	77.6
University of Pikeville	68.0
West Virginia School of Osteopathic Medicine	66.1
University of North Texas Health Science Center	65.8
University of Nebraska Medical Center	65.0
University of New England	65.0
Lake Erie College of Osteopathic Medicine	64.7

Source: ***http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-medical-schools/primary-care-residents-rankings***.

The profession also has a long-standing history of training physicians who practice in rural and underserved areas. Many of our colleges are located in geographic regions with acute physician shortages, such as western Washington, Arizona, and the full span of Appalachia where we have four schools. This commitment to establishing colleges and training opportunities in areas of need is key to meeting the health care needs of underserved communities and is indicative of the profession's commitment to this cause.

For example, the University of New England College of Osteopathic Medicine (UNECOM) is located in Biddeford, ME. The maps below illustrate UNECOM's significant contributions to the primary care needs of Maine.





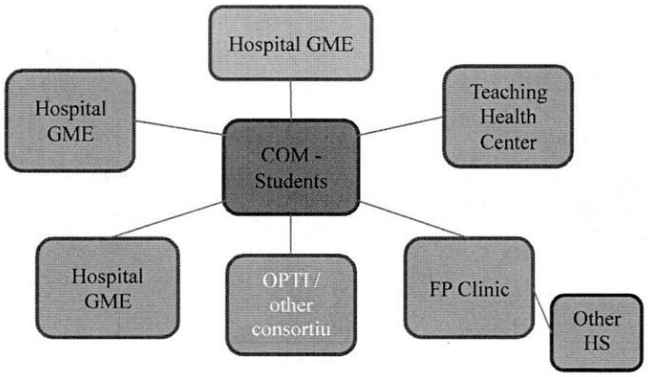
To help address the emerging shortage of primary care physicians, the number of osteopathic medical schools in recent years has been growing at a remarkable rate. Our newer schools continue along the historical traditions by serving rural and urban underserved areas, including the University of Pikeville-Kentucky College of Osteopathic Medicine, which is located in eastern Kentucky in the heart of central Appalachia; the Edward Via Virginia College of Osteopathic Medicine in Blacksburg, VA; the Lincoln Memorial University-DeBusk College of Osteopathic Medicine in Harrogate, TN; and the Touro College of Osteopathic Medicine in Harlem, NY, to name a few.

Drawing matriculates from their surrounding communities, these schools aim to provide primary care to rural and underserved populations.

Today, osteopathic medicine has a total of 29 accredited colleges, offering instruction on 37 campuses in 29 States. The goal of many of these schools is to recruit from their local communities, conduct training in the local areas, and produce physicians who will return to practice osteopathic medicine, many as primary care providers, in those communities.

Another osteopathic school worth noting for its innovation is the A.T. Still University—School of Osteopathic Medicine in Arizona (ATSU-SOMA). Most medical schools use a "2+2" model to educate students—the first 2 years on campus in didactic classes and second 2 years in clinical rotations in hospitals and ambulatory sites. In partnership with the National Association of Community Health Centers, ATSU-SOMA uses a "1+3" model to place students in underserved areas for 3 years of training. Their first year is on campus completing didactic coursework and using standardized and simulated patients. Beginning in year two, the students begin rotating in 1 of 11 community health centers around the Nation. Such exposure in community settings further instills the importance of primary care in these students and prepares them to enter it as a career.

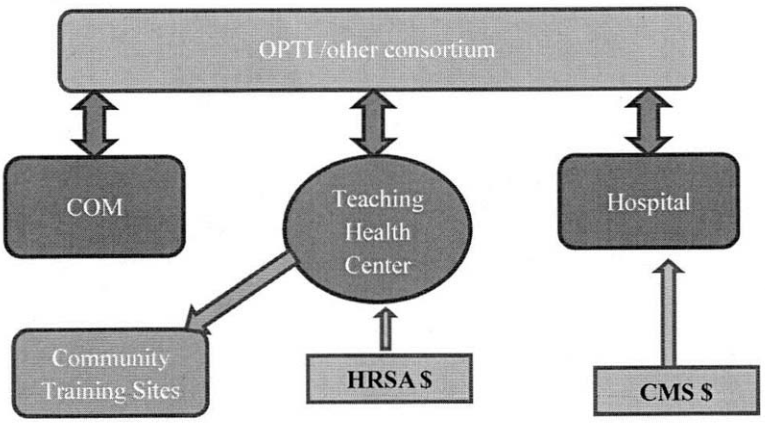
Another advancement in osteopathic training that helps to ensure a community focus is the creation and implementation of the Osteopathic Postdoctoral Training Institution (OPTI) concept in 1995. An OPTI is a community-based training consortium composed of at least one college of osteopathic medicine (COM) and at least one hospital, and it can include teaching health centers, clinics and other ambulatory training facilities. OPTIs are like large umbrellas that connect residency training programs to each other and to colleges of osteopathic medicine. All osteopathic medical schools and osteopathic residency training programs must be members of an OPTI.



The OPTI enhances quality and efficiency in the delivery of medical education by sharing resources both in undergraduate medical education and graduate medical education (GME). Through this partnership with COMs and hospitals, OPTIs provide support for new program development contributing to a stronger primary care workforce. There are currently 21 OPTIs across the United States, and each has a unique mission and vision to serve the needs of the patients and communities in their service areas.

HRSA'S TEACHING HEALTH CENTER GME PROGRAM

While approximately 10 percent of U.S. GME programs are osteopathic, more than half (21 of 32) Health Resources and Services Administration (HRSA) Teaching Health Center residencies are osteopathic consortia programs accredited by the AOA.



Teaching health centers offer primary care residents the opportunity to train in community-based, ambulatory settings—the kinds of settings where they will take care of patients throughout their careers. Residents receive high-quality, hands-on training in venues that expand access to care for patients in urban and rural underserved areas. Training in these settings provides the residents with an opportunity

to make a difference and motivates them to practice in such areas after they finish their training.

GROWTH OF AOA-ACCREDITED GME PROGRAMS

As a result of the growing national demand for additional residency training positions, the osteopathic medical profession increased its internship and residency training programs by 5.6 percent from academic year 2011 to academic year 2012.

	2010–11 Training Programs	2011–12 Training Programs
Total	961	1015

The AOA will also continue its strategy of developing new residency training programs in community settings.

STREAMLINING PHYSICIAN TRAINING

In addition to location and primary care emphasis, another innovation in osteopathic medicine is the accelerated primary care program. Osteopathic medicine has embraced accelerated undergraduate educational programs as a method to address the national shortage of primary care physicians in the United States.

Accelerated programs reduce the length of undergraduate education from 4 years to 3 years, saving the student money. In addition, students commit to entering osteopathic primary care residency programs directly after graduation and practicing primary care medicine for a minimum of 5 years following the successful completion of residency. These programs have been in operation at The Lake Erie College of Osteopathic Medicine's accelerated program since April 2006, and at the New York Institute of Technology College of Osteopathic Medicine's since December 2010.

While our experience with accelerated programs has been positive, more innovation is needed if the national shortage of physicians is to be addressed. The AOA and the American Association of Colleges of Osteopathic Medicine (AACOM) have formed a Blue Ribbon Commission to guide the transformation of the osteopathic medical education system to meet the needs of the next generations of patients. This Commission is composed of the leading medical educators in osteopathic medicine who have been tasked with making recommendations so that the osteopathic medical education system can be a leader in producing physicians needed in the coming years. The physician of the future must understand the dynamics of team-based care and the role of each health care provider in the health of the patient. Importantly, medical education must be integrated and streamlined so that the overall lengths of undergraduate medical education and GME are reduced without sacrificing quality. We anticipate release of the Commission's findings and recommendations later this year.

RECOMMENDATIONS

The American Osteopathic Association (AOA) believes Congress should:

- Revise the cap on GME residency slots to provide a greater teaching capacity in our Nation's teaching hospitals.
- Specify that increases in funded GME residency positions should be targeted to primary care, general surgery, and other medical specialties most in need.
- Prioritize new residency slots to States with new medical schools and colleges of osteopathic medicine.
- Advance proposals that provide for transparency and accountability in the use of GME funding.
- Support new and innovative models for the financing of GME programs and distribution of GME dollars.
- Continue funding important programs including title VII and the HRSA Teaching Health Center GME Program.
- Advance proposals that would increase training opportunities in community-based settings. These settings are underused and viable training sites that are deserving of greater opportunities to train future physicians—especially those in primary care specialties.
- Examine options for targeted scholarship, loan deferment and loan forgiveness programs to encourage medical school graduates to invest in the small primary care practices so many communities are lacking. The average osteopathic medical school

graduate has a debt nearing $200,000, and this can be a deterrent to their entering into primary care.

CONCLUSION

The AOA fully supports dialog on how to ensure an adequate primary care workforce. We believe we have innovative ideas that can be shared broadly. Our colleges and OPTIs are given the encouragement and support to prepare for the evolving needs of our patients. We hope this important dialog on the primary care workforce further facilitates and encourages innovative thinking.

We applaud the subcommittee for their interest in addressing this important issue. Thank you again for the opportunity to submit our statement to the committee, and we look forward to a continued dialog. The osteopathic medical profession remains ready to ensure a strong physician workforce.

PREPARED STATEMENT OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES (AAMC)

The Association of American Medical Colleges (AAMC) is pleased to submit this statement to the record for the April 23, 2013, hearing, "Successful Primary Care Programs: Creating the Workforce We Need," of the Health, Education, Labor, and Pensions (HELP) Subcommittee on Primary Health and Aging.

AAMC is a not-for-profit association representing all 141 accredited U.S.-medical schools and 17 accredited Canadian-medical schools; nearly 400 major teaching hospitals and health systems, including 51 Department of Veterans Affairs medical centers; and nearly 90 academic and scientific societies. Through these institutions and organizations, the AAMC represents 128,000 faculty members, 75,000 medical students, and 110,000 resident physicians.

The AAMC applauds subcommittee Chair Bernie Sanders and Ranking Member Richard Burr for continuing their attention to the gaps in access that will occur as the demand for health care services exceeds the supply of physicians and other health professionals over the next few years. As has been widely reported, and as was described in the subcommittee's January 29 hearing, the Nation faces a shortage of 91,500 physicians in the next decade, a consequence of an aging patient population battling multiple chronic conditions; an influx of up to 32 million newly insured individuals entering the health care system with previously untreated conditions; and attrition in the physician workforce as current practitioners near retirement.

The deficit of physicians spans evenly across both primary and specialty care, with shortages of over 45,000 primary care physicians and 46,000 specialists expected by 2020. Medical schools already have taken the first critical step to address this increased demand, enrolling by 2016, 30 percent more students compared to 2002.

Notwithstanding recent upticks in the number of medical graduates opting to pursue primary care, some have expressed concern about the level of interest in primary care careers (even among pre-medical students) and its implications, given projected shortages. In addition to the noteworthy efforts of The Brody School of Medicine at East Carolina University; the Frank H. Netter, M.D., School of Medicine at Quinnipiac University; and Morehouse School of Medicine, a number of AAMC-member institutions across the country have undertaken initiatives to facilitate interest in primary care careers. In accordance with the theme of this hearing, the AAMC offers through this statement a broad overview of these programs to supplement the testimony of the three witnesses from AAMC-member institutions. In light of the pressing health needs of the rapidly increasing Medicare population, the AAMC hopes the subcommittee next will schedule a subsequent hearing that explores the similarly surging demand for specialty care.

Despite the best efforts of medical schools to increase the number of matriculates, such action will have a negligible effect on reversing physician shortages—in either primary or specialty care—unless Congress permits a proportionate increase in Federal support for graduate medical education (GME) training positions at teaching hospitals. The limited availability of residency positions—the direct result of a cap Congress imposed in 1997, freezing Medicare support for GME at 1996 levels—soon will preclude medical graduates from completing the supervised training required for independent practice.

According to the National Resident Matching Program, in the 2013 Match, 528 qualified U.S.-medical school graduates did not match to a residency training position and 99.4 percent of positions were filled. Only five family medicine positions, six internal medicine positions, two pediatrics positions, 10 preliminary general surgery positions, seven psychiatry positions, and 31 positions in a handful of other

specialties remained unfilled at the conclusion of the Match and the Supplementary Offer and Acceptance Program. Regardless of a medical graduate's specialty choice, he or she will not be able to complete the training required for independent practice unless a sufficient number of training positions is available across specialties. Thus, successfully bolstering the number of both primary care and specialty care physicians will rely on congressional action to expand Medicare support for training positions at teaching hospitals.

Accordingly, this statement also highlights legislation recently introduced in both chambers to release this bottleneck. The "Resident Physician Shortage Reduction Act of 2013" (S. 577/H.R. 1180) and the "Training Tomorrow's Doctors Today Act" (H.R. 1201) will be a critical element of any comprehensive national workforce strategy. Other Federal programs also play a key role in promoting primary care practice. The AAMC encourages the subcommittee to continue its longstanding tradition of support for investments in the health care workforce and to work with the Senate Finance Committee, as well as the House Ways & Means and Energy & Commerce Committees, in advancing S. 577/H.R. 1180/H.R. 1201, in the interest of improving access to care for all patients.

MEDICAL SCHOOLS ARE ACTIVELY RESPONDING TO THE NATION'S WORKFORCE NEEDS

In 2005, the Liaison Committee on Medical Education (LCME) fully accredited a new medical school for the first time since 1986, bringing the total number of medical schools to 125. Today, after two decades of no growth, the total number of medical schools stands at 141, paralleled by increases in class sizes at existing medical schools. The proliferation of medical education programs predates enactment of the Affordable Care Act (ACA, P.L. 111–48 and P.L. 111–52), rather reflecting a recognition that the Baby Boomers soon would confront ailments common to old age—ranging from Alzheimer's disease and dementia to heart disease to hip fractures—and the physician supply would not be sufficient to meet their needs. Extending health care coverage to as many as 32 million previously uninsured individuals through the ACA amplifies these looming physician shortages and heightens the urgency to address them.

Guided by both the benefit and challenge of building a new educational program from scratch, the new medical schools are proving eager to pursue curricular innovations to help address both national and local needs. Prevalent themes among this new cohort include early clinical experiences for students, curricular structures that integrate the basic and clinical sciences, emphasis on interprofessional educational opportunities, and case-based learning. Schools also are reporting novel approaches to advancing their specific missions, such as Cooper Medical School of Rowan University, which requires students to complete 40 hours annually of non-medical community service in the school's neighborhood of Camden, NJ. While the mission of each medical school necessarily differs, many of the new schools report an emphasis on primary care.

Profiles of these new institutions are featured in the November 2012 AAMC report, *A Snapshot of the New and Developing Medical Schools in the United States and Canada*, available at: *https://members.aamc.org/eweb/upload/A%20Snapshot%20of%20the%20New%20and%20Developing%20Medical%20Schools%20in%20the%20US%20and%20Canada.pdf*. Continued study and analysis of their efforts over time will help inform opportunities to further shape medical education and the culture of medical practice.

Existing medical schools also have implemented creative initiatives to address challenges as they evolve, including some specifically targeted to promoting primary care. In a 2010 survey of medical school deans, 75 percent (94 of 125 respondents) reported current or future plans to institute programs or policies to encourage student interest in primary care. Two-thirds of those 94 schools reported refined admissions criteria and 60 percent reported expanded primary care faculty and/or resources. Most also reported new or expanded extracurricular opportunities (87 percent); new, expanded, or modified clinical rotations (74–73 percent); modified preclinical curricula (71 percent); and other activities (19 percent).

The Duke University School of Medicine officially launched the Primary Care Leadership Track in 2011 after a 2-year pilot phase. The program combines community service, experience, and requires a year of community-engaged research, with a goal of preparing physicians to work with and learn from communities to improve care delivery and produce better outcomes. Similarly, the University of California, San Francisco (UCSF), School of Medicine administers the Program in Medical Education for the Urban Underserved (PRIME–US), an effort that is not a dedicated primary care track, though the majority of participants enter primary care disciplines. The program aims to produce leaders to care for urban underserved com-

munities and embeds community-based participatory research among students' experiences.

Some medical schools have established rural or small-town regional campuses that serve as fully functional branches of the main campus. Groups of students receive their entire 4 years of undergraduate medical education, or the bulk of their clinical experience, at the rural site. For example, the Columbia University College of Physicians and Surgeons in New York began accepting students in the fall of 2011, for a new rural medicine track in partnership with Bassett Healthcare System in the upstate New York village of Cooperstown. For the first 18 months of medical school, students in the Columbia-Bassett program attend core "foundations of medicine" classes at Columbia's northern Manhattan campus, then move to Cooperstown, a town of only 2,000, for longitudinal clinical experiences. The University of Kansas School of Medicine, Indiana University School of Medicine, and the Texas Tech Health Sciences University in Lubbock—among others—boast similar programs.

Other institutions are building new models for primary care in the face of changing demographics and health care challenges. The Warren Alpert Medical School of Brown University is developing a novel dual-degree Primary Care and Population Health program to ensure graduates understand the clinical, behavioral, and public health contexts of patient care. Expected to begin in fall 2015, the 4-year M.D./Sc.M. program would allow students to follow patients through their various interactions with the health care system by engaging in 9-month, physician practice-based clerkships. The experiences are designed to help students learn not only the medical knowledge necessary for quality care, but also public health policy, leadership skills, and familiarity with practice as part of a broader patient-care team.

At the national level, the AAMC has partnered with other health education associations through the Interprofessional Education Collaborative (IPEC) to focus on better integrating and coordinating the education of nurses, physicians, pharmacists, dentists, public health professionals and other members of the patient health care team to provide more collaborative and team-based care. A growing body of work demonstrates that shared learning experiences of this sort can improve health outcomes. Supported by funding from the Macy Foundation, IPEC recently awarded funding to 16 interprofessional teams to accelerate education content refinement and submission for peer review to AAMC's free, web-based MedEd-PORTAL data base, which will serve as a national clearinghouse of competency-linked learning resources for IPE and models of team-based or collaborative care. To date, interest in IPEC's faculty development institutes has been so strong that registration reaches capacity only hours after opening.

In graduate medical education, too, a number of institutions have successfully incorporated key attributes of the Patient-Centered Medical Home (PCMH) model of care into their delivery system while serving as a training site for medical residents and other health professionals. In early 2010, the AAMC, in collaboration with representatives of the Society of General Internal Medicine (SGIM) and the American College of Physicians (ACP), designed a survey that was distributed to AAMC member institutions, asking participants to identify residency programs that have integrated into their care system infrastructural or workforce transformations commonly associated with the medical home. Respondents to the survey described a high level of team-based care consisting of physician and non-physician clinicians, as well as care coordinators, social workers, PharmDs, and nutritionists. Practices also noted enhanced access and communication, significant quality monitoring and improvement activities, and near unanimous access to electronic health records technology. Seven high-performing practices (including The Brody School of Medicine Department of Family Medicine) were profiled in the AAMC's November 2010 publication, *Moving the Medical Home Forward: Innovations in Primary Care Training and Delivery*. The full report is available at: *https://members.aamc.org/eweb/upload/Moving%20the%20Medical%20Home%20Forward.pdf*.

The examples cited here are by no means exhaustive. While all medical schools are committed to producing primary care physicians in accord with the Nation's needs, it is also important to note that each medical education program is responsible for establishing a curriculum aligned with its own institutional missions and educational objectives within the framework of general competencies required for accreditation by the LCME. Medical schools serve society in many ways—they conduct groundbreaking medical research that helps address the health needs of all patients; they provide vital community services such as geriatric care, nutrition counseling, health clinics, and free screenings for the uninsured and underinsured; and they work to improve medical care not only for Americans, but also for disadvantaged populations globally. Measuring their contributions to society solely through their efforts to cultivate interest in primary care overlooks the vital role that many

of these institutions play in advancing other essential components of quality health care.

Moreover, the AAMC strongly supports the ability of individual medical students and physicians to determine for themselves which area of medicine they wish to pursue. While medical schools actively carry out their responsibility to present an array of rich educational experiences across disciplines of medicine, ultimately, each individual student must determine the specialty that best suits his or her personal and career goals. Education and training cannot overcome the intense market incentives that influence physician choices.

EXPANDING THE PHYSICIAN WORKFORCE RELIES ON CONGRESS LIFTING THE CAP ON GME SUPPORT

Before medical graduates can practice independently, they must complete advanced supervised training in the form of a residency at a teaching hospital. But, as described above, Congress has limited the availability of training positions by freezing Medicare support for GME at 1996 levels. Though medical schools will be graduating more medical students to respond to the increased demand, the overall number of physicians is likely to remain the same without congressional action. This bottleneck will thwart efforts to expand both the primary care and specialty care workforce.

Medicare Supports GME to Ensure Access to Physicians and to Highly Specialized Services for Medicare Beneficiaries

Physician training is inextricable from patient care, and Medicare historically has paid for its share of the costs of training and the highly sophisticated health services provided by teaching hospitals. Medicare reimburses teaching hospitals for a portion of these costs.

Direct Graduate Medical Education (DGME) payments are intended to offset the direct costs of GME, such as resident stipends and benefits; supervising faculty salaries and benefits; and allocated institutional overhead costs. These payments are tied directly to a program's "Medicare share," an institution-specific amount that reflects Medicare volume as a percent of patient care days at the institution. According to fiscal year 2009 Medicare cost reports (*www.HealthData.gov*), Medicare DGME payments reimbursed *less than one quarter of the total direct costs* teaching hospitals incurred in 2009. The training costs above Medicare's share are borne primarily by the program itself.

Medicare DGME payments are not limited to teaching hospitals; currently, community health centers and other teaching settings are eligible for DGME payments that, like teaching hospitals, are calculated based on the facility's Medicare share. Congress repeatedly has clarified that Medicare GME support should remain tied to the level of Medicare services provided, rather than diverting limited Medicare funds to providers that do not treat a substantial number of Medicare beneficiaries.

Teaching hospitals also receive Medicare Indirect Medical Education (IME) payments, but these are *patient care payments* that recognize the additional costs incurred by teaching hospitals because they maintain specialized services and treat the most complex, acutely ill patients. For example, AAMC member teaching hospitals operate 80 percent of Level 1 Trauma centers, 79 percent of all burn care units, 40 percent of neonatal- and 61 percent of pediatric ICUs, nearly half of surgical transplant services, and provide a range of other highly sophisticated services not offered elsewhere in communities. Compared with physician offices and other hospitals, major teaching hospitals care for patients that are sicker, poorer, and more likely to be disabled or non-white. IME payments are meant to partially offset these costs. Providers that do not incur the unique patient care costs associated with caring for highly complex, severely ill inpatients (i.e., ambulatory sites that largely provide primary, non-acute care) do not qualify for these payments.

The current caps on physician training were imposed at a time when most researchers predicted that the delivery system would change rapidly and drastically under the influence of tightly managed care. Today, the health care delivery system is in a time of significant transformation with numerous Federal, State, and private efforts under way to improve coordination and quality of care, increase access, and reduce cost—which may have a significant impact on demand for physician services. It is too early to know the short- or long-term effect these nascent efforts will have on our future workforce needs, but these changes will take years to come to fruition. In the interim, it would be irresponsible to ignore the Nation's expanding health care needs. As demonstrated in Massachusetts, expanding insurance coverage leads to an initial increase in utilization of both primary and subspecialty care.

Legislation Introduced Recently Would Strengthen the Primary and Specialty Care Workforce by Lifting the Freeze on Medicare GME Support

Senators Bill Nelson and Chuck Schumer and Majority Leader Harry Reid recently introduced the "Resident Physician Shortage Reduction Act of 2013" (S. 577) to expand physician training support. The measure is accompanied by a bipartisan companion (H.R. 1180) in the House, introduced by Reps. Joe Crowley and Michael Grimm, as well as a similar bill, the "Training Tomorrow's Doctors Today Act" (H.R. 1201), introduced by Reps. Aaron Schock and Allyson Schwartz. While there are some differences among the bills, all three would increase the number of residency slots by 15,000 over 5 years, directing half of the newly available positions to training in shortage specialties. The bills also specify priorities for distributing the new slots, such as prioritizing States with new medical schools and hospitals that emphasize training in community health centers, community-based settings, or hospital outpatient departments.

AAMC strongly supports these bills, which are consistent with the policy recommendations AAMC outlined in its statement submitted to the record for the subcommittee's January 29 hearing. With over 99 percent of current residency positions filled in the 2013 Match, any efforts to augment the number of practicing physicians of any specialty will rely on the availability of additional training positions. Further, proposals to undermine support to teaching hospitals threaten to weaken the Nation's physician training capacity at the most inopportune time.

It also should be noted that attempts to increase physicians in targeted specialties by reducing training of other specialists will impede access to care. Approximately half (or 13,000) of first-year residency training positions are in family medicine, internal medicine, and pediatrics; while many of these residents will go on to subspecialize, the number of fellowship (or subspecialty) training positions accounts for approximately 20 percent of all available GME slots. Attempting to force physicians to forgo subspecialty training by limiting fellowship opportunities would have limited effect and, even if successful, would jeopardize timely access to care for patients who require a subspecialist. Past attempts to influence specialty selection through Medicare GME payments have failed, leading the Medicare Payment Advisory Commission (MedPAC) to promote other mechanisms, such as clinical reimbursement, the National Health Service Corps (NHSC) and title VII health professions education and training programs, instead.

INVESTMENTS ARE NECESSARY IN OTHER FEDERAL PROGRAMS THAT PROMOTE PRIMARY CARE

Many claim prohibitive debt levels lead medical students to choose careers other than primary care, but surprisingly little evidence supports this assertion. In fact, a thorough review of the academic literature shows little to no connection between debt and specialty choice. Rather, studies show specialty choice is a complex and personal decision involving many factors. According to AAMC's annual survey of graduating medical students, the most important factors are a student's personal interest in a specialty's content and/or level of patient care; desire for the "controllable lifestyle" offered by some specialties; and the influence of a role model in a specialty. Student debt consistently ranks toward the bottom of the list for this question every year. Additional discussion of such influences is included in the recent report, *AAMC Physician Education Debt and the Cost to Attend Medical School: 2012 Update*, available at: *https://www.aamc.org/download/328322/data/statedebtreport.pdf*.

Further, Federal programs, such as the NHSC, offer incentives to help physicians manage their debt. A January 2013 study in *Academic Medicine* found that "physicians in all specialties, including primary care, can repay the current median level of education debt. At the most extreme borrowing levels . . . options exist to mitigate the economic impact of education debt repayment. These options include an extended repayment term or Federal loan forgiveness/repayment program," such as Income Based Repayment, Public Service Loan Forgiveness, and the NHSC. Continued investment in the NHSC and other programs designed to encourage practitioners toward primary care practice is another key component to an optimal Federal workforce strategy.

National Health Service Corps (NHSC)

Administered by the Health Resources and Services Administration (HRSA), the NHSC provides scholarships and loan repayment to health professionals in exchange for practicing primary care in federally designated health professions shortage areas (HPSAs). The program is widely recognized—both in Washington and in the underserved areas it helps—as a success on many fronts. The NHSC improves

access to health care for the growing numbers of rural and urban underserved Americans; provides incentives for practitioners to enter primary care; and reduces the financial burden that the cost of health professions education places on new practitioners.

By the end of fiscal year 2013, the NHSC expects to have provided scholarships and loan repayment to over 44,400 health professionals committed to providing care to underserved communities over its 41-year history. In 2012, NHSC clinicians working at NHSC sites provided primary health care to 10.4 million underserved people in HPSAs. In spite of the NHSC's success, there are still over nearly 55 million people living in 5,900 primary care HPSAs. It would take nearly 7,550 physicians to eliminate these primary care HPSAs.

The NHSC State Loan Repayment Program (SLRP) is a grant program which offers a dollar-for-dollar match for State loan repayment programs. Unfortunately, the NHSC SLRP is redundantly limited to matching the funding of State programs that address the same workforce shortages as the Federal program. The AAMC recommends expanding authorization of the NHSC SLRP to allow States to address their unique primary care service shortages.

Thanks in large part to the efforts of the Chairman, the ACA provides crucial funding for the NHSC through fiscal year 2015. The steady, sustained, and certain growth established by this mandatory funding for the NHSC has resulted in program expansion and innovative pilots such as the Student to Service (S2S) Loan Repayment Program that incentivizes fourth-year medical students to practice primary care in underserved areas after residency training.

The AAMC opposes any rescissions from or repeal of the NHSC Fund created under the ACA. The AAMC further requests that any expansion of NHSC eligible disciplines or specialties be accompanied by a commensurate increase in NHSC appropriations so as to prevent a reduction of awards to current eligible health professions. Despite growing health professional workforce shortages and an unprecedented access to health insurance, the NHSC Fund expires soon, leaving questions about how Congress will maintain the program after fiscal year 2015. The AAMC encourages the subcommittee to prioritize continued funding for NHSC beyond fiscal year 2015, while also preserving the full spectrum of other Federal health care workforce programs.

Title VII Health Professions Programs

The HRSA programs authorized under Title VII of the Public Health Service Act are designed to provide education and training opportunities in high-need areas to aspiring health care professionals. With a focus on primary care, they are the only Federal programs designed to train providers in interdisciplinary, community-based settings to meet the needs of the country's special and underserved populations, increase minority representation in the health care workforce, and fill the gaps in the supply of health professionals not met by traditional market forces. Celebrating their 50th anniversary in 2013, the programs' longstanding success can be attributed to their ability to help the workforce adapt to Americans' changing health care needs by advancing timely priorities.

For example, HRSA data from the 2011–12 academic year show the number of title VII participants who practice in a medically underserved community (MUC) and/or a HPSA after graduation is increasing, and on average, 1 in 3 participants enter practice in a MUC or HPSA. Further, individuals who participate in title VII programs are more likely to join the NHSC and/or work in community health centers (CHCs).

In addition to the title VII primary care medicine programs, the title VII Area Health Education Centers (AHEC) program, which provides interprofessional, community-based training opportunities, trained more than 28,000 medical students in rural and or underserved communities in the 2011–12 academic year alone. AHECs also provide academic enrichment to students and continuing education to providers on a variety of topics, including cultural competence, health disparities, diabetes, and issues affecting veterans.

Similarly, the title VII diversity programs play an instrumental role in producing a workforce equipped to mitigate racial, ethnic, and socio-economic health disparities. For example, the most recent data show that the diversity pipeline Health Careers Opportunity Program (HCOP) trained 5,333 disadvantaged students, a 20 percent increase over the previous year, helping students successfully complete their coursework and helping to create a more competitive applicant pool to health education programs.

Yet, despite the programs' successes in shaping the health care workforce, their relatively modest funding continually is under siege. The AAMC recommends $520

million in fiscal year 2014 for the title VII health professions programs and their nursing workforce development counterpart, title VIII.

Teaching Health Centers

The Teaching Health Center (THC) program is a new HRSA initiative, established in the Affordable Care Act and funded with a mandatory appropriation. The THC program provides payments of $150,000 per resident, per year, to community-based, ambulatory patient care centers that operate primary care residency programs. These payments are being made at a far higher level than Medicare supports teaching hospitals. The law requires programs to meet the same accreditation criteria as other residency programs, and HRSA allows THCs to satisfy this requirement through participation in a consortium that includes a hospital/other entity that is listed as the institutional sponsor.

AAMC continues to support HRSA funding for this new program, given that the agency oversees the Federal health center program, health professions workforce development programs, and other community-based entities. We look forward to studying the outcomes of the initial cohort of THCs, and how continued HRSA funding can sustain the higher payments made to these facilities.

Medical schools and teaching hospitals make unparalleled contributions to improving medical care in the United States and around the globe through their integrated missions of education, research, and patient care. As the Nation faces an unprecedented demand for health care services, continued support for these institutions will be essential.

Thank you again for the opportunity to submit this statement for the record and for your leadership in addressing this important subject. The AAMC looks forward to working with the subcommittee in strengthening access to health care for patients across the country.

PREPARED STATEMENT OF THE AMERICAN ACADEMY OF PHYSICIAN ASSISTANTS (AAPA)

On behalf of the more than 90,000 clinically practicing physician assistants (PAs) in the United States, the American Academy of Physician Assistants (AAPA) is pleased to submit comments to the Senate HELP Subcommittee on Primary Health and Aging following its April 23, 2013 hearing, *Successful Primary Care Programs: Creating the Workforce We Need*.

The Academy has been following the subcommittee's actions, and we appreciate the subcommittee's continued recognition of the physician assistant profession, as well as the subcommittee's support for primary care and public health.

Nearly 30 million uninsured people are about to obtain medical coverage under the Patient Protection and Affordable Care Act beginning January 2014; yet, we have a projected shortage of 45,000 primary care physicians by 2020. The AAPA believes that the physician assistant profession is integral to addressing this shortage and improving access to care for those currently in the system, and for those who will seek care in 2014.

The PA profession has grown dramatically since its first education program was launched nearly 45 years ago. With over 90,000 certified PAs and 6,000 newly graduated PAs joining their ranks this past year, PAs are one of the fastest growing healthcare professions in the United States. In fact, the Bureau of Labor Statistics predicted in 2010 a 30 percent growth in PA jobs over the next decade.

Furthermore, since the passage of the Patient Protection and Affordable Care Act in 2010, over 80 new PA education programs are expected to be accredited by mid-2016. With this substantial growth rate, it is projected that over 10,000 PAs will be entering the medical workforce per year by 2020 to help offset the growing shortage of physicians.

PAS IN PRIMARY CARE

An estimated 30,000 PAs (30 percent of the profession) work in primary care across the Nation—37 percent work in private practice (both physician group and solo practices); 3.1 percent practice in community health centers, 2.7 percent practice in certified rural health clinics, and 2.1 percent work in a Federally Qualified Health Center.

PAs are also one of three primary care providers who work in the National Health Service Corps (NHSC). The NHSC is an important Federal program with nearly 10,000 healthcare providers, like PAs, who benefit from the program's loan-forgiveness and scholarships awards to those providers and students who commit 2 years to provide medical, dental and mental healthcare in medically underserved areas.

Additionally, an estimated 2,790 PAs proudly work in community health centers (CHCs) around the country, some as CHC medical directors. Community health centers provide cost-effective healthcare throughout the country and serve as medical homes for millions in medically underserved areas. CHCs offer a wide variety of healthcare services through team-based care, providing high quality healthcare to CHC patients and significantly reducing medical expenses.

HOW ARE PAS EDUCATED?

The PA educational program is modeled on the medical school curriculum, a combination of classroom and clinical instruction. The PA course of study is rigorous and intense. The average length of a PA education program is 27 months.

Admission to a PA educational program is highly competitive. Applicants to PA programs must complete at least 2 years of college courses in basic science and behavioral science as prerequisites to PA school, analogous to premedical studies required of medical students. The majority of PA programs have the following prerequisites: chemistry, physiology, anatomy, microbiology, and biology. Additionally, most PA programs require or prefer that applicants have prior healthcare experience.

PA education includes instruction in core sciences: anatomy, physiology, biochemistry, pharmacology, physical diagnosis, pathophysiology, microbiology, clinical laboratory science, behavioral science and medical ethics.

PAs also complete more than 2,000 hours of clinical rotations, with an emphasis on primary care in ambulatory clinics, physician offices and acute or long-term care facilities. Rotations include family medicine, internal medicine and psychiatry.

Practicing PAs participate in lifelong learning. In order to maintain national certification, a PA must complete 100 hours of continuing medical education every 2 years. Additionally, PAs must currently take a recertification exam every 6 years to maintain certification through the National Commission on Certification of Physician Assistants.

Currently there are 173 accredited Physician Assistant education programs in the U.S., with 74 in the pipeline. The overwhelming majority of PA educational programs award master's degrees. Currently 41 PA programs have a curriculum that prepares students specifically for a career in primary care, including PA educational programs represented by Senators on the subcommittee, such as: Christian Brothers University in Tennessee, Duke University, and the University of Maryland Eastern Shore. All PA educational programs are accredited by the Accreditation Review Commission on Education for the Physician Assistant.

Many of these primary care mission-based PA programs benefit from grants from the Public Health Service Act Title VII Health Professions Program. These funds are awarded to programs that not only educate and guide PA students into primary care and underserved areas, but also recruit PA students from underrepresented minority populations to help improve the diversity of the healthcare workforce.

An AAPA study of PA graduates from 1990–2009 revealed that PAs who graduated from a title VII supported program were 67 percent more likely to be from an underrepresented minority population and were 47 percent more likely to work in a rural health clinic. The title VII program is the only Federal educational program designed to address the supply and distribution imbalances in the health professions.

In 2010, 39 percent of all PA graduates went into primary care, which includes family medicine, general internal medicine, and general pediatrics. With the need for more primary care providers, it is crucial that we invest in the title VII program that supports PA educational programs in primary care. With title VII assistance, the PA profession is expected to grow 39 percent through 2018 to help meet the increasing demands for care.

CURRENT CHALLENGES IN EDUCATION

Due to the rapid growth in the number of PA programs, title VII Health Professions grants are a necessary part of developing new curricula to address the needs of underserved populations, as well as faculty development for new and experienced faculty.

Faculty development is crucial. The anticipated 74 new PA educational programs will require approximately 448 new faculty members, many of whom will likely transition from clinical practice with no teaching experience. In addition, the current PA educational grant has two new priorities for programs to address: developing a pathway for our Nation's veterans into PA educational programs and improving the quality of teaching at clinical training sites.

As it is for other health professions, acquiring, maintaining and ensuring a high-level of quality clinical sites is a tremendous challenge for PA programs. Title VII grants help fill these gaps and ensure that PA curriculum and faculty are able to address the training needs of students, as well as to ensure well-trained clinicians to meet the Nation's growing health needs.

PHYSICIAN ASSISTANT PRACTICE

Physician assistants are licensed health professionals who practice medicine as members of a team with a physician. PAs exercise autonomy in medical decision-making and provide a broad range of medical and therapeutic services to diverse populations in rural and urban settings.

In all 50 States, PAs carry out physician-delegated duties that are allowed by law and within the physician's scope of practice and the PA's training and experience. Additionally, PAs are delegated prescriptive privileges in all 50 States, the District of Columbia, and Guam. This allows PAs to practice in rural, medically underserved areas where they are often the only full-time medical provider.

UNNECESSARY FEDERAL BARRIERS TO MEDICAL CARE PROVIDED BY PAS

Over the last 45 years, the PA profession has emerged as a critical component of our Nation's healthcare workforce and was recognized in the Patient Protection and Affordable Care Act as one of three professions providing primary care. However, Federal laws and regulations created during the advent of the profession have not kept pace with the evolution of PA practice into the 21st century. Significant and unnecessary barriers to the quality medical care provided by PAs remain. Specifically, changes are necessary to allow PAs to provide hospice care to, and order hospice and home health care for, Medicare beneficiaries. Additionally outdated Medicare regulations, such as the inability of PAs to order fecal occult blood tests, must be addressed to allow PAs to practice as efficiently as possible.

PAs were largely left out of the Medicaid electronic health record incentive (EHR) program in the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009. The absence of PAs in this program has created a disparity for patients served by PAs, particularly in underserved areas where PAs may be the sole primary care provider. Unless the PA a is the lead practitioner in a Federally Qualified Health Center or a Rural Health Clinic, their practice and their patients may be unable to obtain access to electronic health records due to the lack of funding. The Medicaid EHR incentive program is a significant boon to medical offices around the country, yet PAs are not able to access this incentive in the same manner as physicians and nurse practitioners, creating a financial disincentive for some practices to employ PAs.

HOW DOES THE QUALITY OF CARE PROVIDED BY PAS RATE?

PAs deliver high-quality care and enjoy high patient satisfaction. Studies have consistently shown that PAs provide high-quality care with outcomes similar to physician-provided care. Additionally, studies have shown that incorporating PAs into office or hospital practice can improve outcomes. For example, when a trauma center transitioned from a resident-assisted to PA-assisted trauma program, the quality of care improved, with a 1-day reduction in length of stay. A study published in the *Journal of the American Geriatrics Society* indicates that nursing homes that used PAs had lower hospitalization rates for ambulatory care sensitive conditions.

Patients are consistently satisfied with PA-provided care. Studies have shown that patients are just as satisfied with medical care provided by PAs as with that provided by doctors and do not distinguish between types of care providers.

HOW DO PAS INCREASE THE COST-EFFECTIVENESS OF HEALTHCARE?

Studies have shown that PAs can increase the cost-effectiveness of healthcare. PA labor costs are more affordable. A practice employing a PA pays less in overhead costs for that PA compared to a physician, while having a healthcare provider on board who can provide most of the same services. A study examining a national sample of patients found that those who saw a PA for most of their yearly office visits had approximately 16 percent fewer visits per year than patients who only saw physicians.

Additionally, PAs provide preventive services, which reduce the need for more costly acute care and chronic care management. Patient costs, in terms of actual payment, lost time from work and unnecessary pain, are decreased when patients can be seen promptly in the most appropriate setting. For example, it is always

more cost-effective to get a flu vaccination than to be hospitalized for an influenza-related complication.

PA education costs less and takes less time than physician education, which allows PAs to enter the workforce more quickly. Further, PAs can practice in any medical or surgical specialty, and they can perform almost all the duties that physicians perform. Therefore, PAs are cost-effective options for practices and hospitals looking to offset physician shortages and trim overhead.

HOW DO PAS FIT INTO HEALTHCARE REFORM AND THE PATIENT PROTECTION AND AFFORDABLE CARE ACT (PPACA)?

The intent of healthcare reform is to provide care for all Americans while reducing healthcare costs through adequate preventive care. PAs help extend physician care and can easily adapt to any care model. Their education prepares them to work in teams, and they help to coordinate care and provide preventive services.

PAs were recognized by Congress and the President as crucial to improving U.S. healthcare. In the PPACA, Congress recognized PAs as one of three healthcare professions in primary care. PAs were also recognized as crucial to the Independence at Home model noted in the PPACA. Further acknowledging PAs' value in a reformed healthcare system, the Administration in 2010 committed additional money for the education of PAs.

One example of an emerging care model that is strongly supported by health care reform is the patient centered medical home (PCMH). This model makes use of all healthcare providers' skills in ways that are most efficient and effective for patients and encourages open and continued communication with each provider and the patient.

In a PCMH, clinicians work together to provide care that is comprehensive, ongoing and coordinated. The clinical team provides primary, acute and preventive medical care. The team also integrates specialty referrals and other services from the health system and community.

Additionally, PAs play a vital role in chronic care management. Chronic care management programs may reduce hospital admissions, re-admissions, specialty care and prescription drug use, in turn eliminating costly healthcare services. This model relies heavily on patient education and empowering patients to play an integral role in their healthcare.

Thank you for the opportunity to submit comments for the hearing record on behalf of the American Academy of Physician Assistants.

PREPARED STATEMENT OF THE PHYSICIAN ASSISTANT EDUCATION ASSOCIATION (PAEA)

On behalf of the 174 accredited physician assistant (PA) education programs in the United States, the Physician Assistant Education Association (PAEA) is pleased to submit these comments for the record on the recent hearing, "Successful Primary Care Programs: Creating the Workforce We Need."

PRIMARY CARE CRISIS

The unmet need for primary care services in the United States is well documented, and only expected to grow as Baby Boomers age and the Affordable Care Act is fully implemented. Simultaneously, the very parameters of access and health care quality are rapidly evolving. Yet the one constant in our health care system remains the need for qualified health care providers in numbers sufficient to meet demand, and primary care has been clearly identified as the critical entry point into the health care system where that access must be guaranteed. PAs stand ready for the challenges in primary care, and could play an even larger role with appropriate financial support and through innovations in the PA education system.

Like physicians, the PA profession also faces shortages that will hinder its ability to help address the primary care issue in the United States. Without new solutions, at the current output of approximately 6,500 graduates from PA programs per year, these shortages will persist, particularly in the rural and underserved communities where care is needed the most. Title VII funding is the only opportunity for PA programs to apply for Federal funding and plays a crucial role in developing and supporting the PA education system's ability to produce the next generation of these critical advanced practice clinicians.

BACKGROUND ON THE PA PROFESSION

Since the 1960s, PAs have consistently demonstrated they are effective partners in health care, readily adaptable to the needs of an ever-changing delivery system.

Physician assistants are licensed health professionals who practice medicine as members of a team with their supervising physicians. PAs exercise autonomy in medical decisionmaking and provide a broad range of medical and therapeutic services to diverse populations in rural and urban settings. In all 50 States, PAs carry out physician-delegated duties that are allowed by law and within the physician's scope of practice and the PAs training and experience. Additionally, PAs are delegated prescriptive privileges by their physician supervisors in all 50 States, the District of Columbia, and Guam. This allows PAs to practice in rural and other medically underserved areas where they are often the only full-time medical provider.

PA EDUCATION: THE PIPELINE FOR PHYSICIAN ASSISTANTS

There are currently 173 accredited PA education programs in the United States—a 23 percent increase over the past 5 years; together these programs graduate over 6,500 PA students each year. PAs are educated as generalists in medicine and their flexibility allows them to practice in more than 60 medical and surgical specialties. More than a third of PA program graduates practice in primary care.

The average PA education program is 26 months in length and typically, 1 year is devoted to classroom study and approximately 12 months is devoted to clinical rotations. Most curricula include 340 hours of basic sciences and nearly 2,000 hours of clinical medicine.

As of today, approximately 74 new PA programs are in the pipeline at various stages of development, moving toward accredited status. The growth rate in the applicant pool is even more remarkable. Since its inception in 2001 until the most recent application cycle, the Centralized Application Service (CASPA) used by most programs grew from 4,669 applicants to over 19,000. In March 2009, there were a total of 12,216 applicants to PA education programs; as of March 2013, there were 19,786 applicants to PA education programs. This represents a 54 percent increase in CASPA applicants over the past 5 years.

The PA profession is expected to continue to grow as a result of the projected shortage of physicians and other health care professionals, the growing demand for care driven by an aging population, and the continuing strong PA applicant pool. The Bureau of Labor Statistics projects a 39 percent increase in the number of PA jobs between 2008 and 2018. With its relatively short initial training time and the flexibility of generalist-trained PAs, the PA profession is well-positioned to help fill projected primary care shortages in the numbers of health care professionals—if appropriate resources are available to support the education system behind them.

AREAS OF ACUTE NEED

Faculty Shortages

Faculty development is one of the profession's critical needs and educators are an often overlooked element to developing an adequate primary care workforce. In order to attract the most highly qualified individuals to teaching, PA education programs must have the resources to train faculty in academic skills, such as curriculum development, teaching methods, and laboratory instruction. Most educators come from clinical practice and these non-clinical professional skills are essential to a successful transition from clinical practice to teaching. Without Federal support, we will continue to cycle through faculty in the didactic and clinical portions of PA student education. Nearly 50 percent of PA faculty are 50 years or older so the profession faces large numbers of retirements in the next 10–15 years. An interest in education must be developed early in the educational process to maintain a continuous stream of qualified educators.

Clinical Site Shortages

A lack of clinical sites for PA education is hampering PA programs' ability to produce the next generation of PAs at the pace needed to meet the demand for primary care in the United States. This shortage is caused by two main factors: a shortage of people willing to teach students as they are cycling through their rotations (preceptors), and a lack of sites with the physical space to teach.

This phenomenon is experienced throughout the health professions, and is particularly acute in primary care. It has created unintentional competition for clinical sites and preceptors within and among PAs, physicians and advance practice nurses. Federal funding can help incentivize practicing clinicians to both offer their time as preceptors, and volunteer their clinical operations as training grounds for PAs and other health professionals. PAEA believes that interprofessional clinical training and practice are necessary for optimum patient care and will be a defining model of health care in the United States in the 21st century. We can only make that a reality if we begin to build a sufficient network of health professionals who are will-

ing to teach the next generation of primary care professionals—that approach will benefit PAs as well as the future physicians and nurses that comprise the full primary care team.

Enhancing Diversity

Generalist training, workforce diversity, and practice in underserved areas are key priorities identified by HRSA. It is increasingly important that the health workforce better represents America's changing demographics, as well as addresses the issues of disparities in health care. PA programs have had success in attracting students from underrepresented minority groups and disadvantaged backgrounds using programs such as the National Health Service Corps (NHSC), Scholarships for Disadvantaged Students (SDS) and the Health Careers Opportunity Program (HCOP). Studies have found that health professionals from underserved areas are three to five times more likely to return to underserved areas to provide care. If we can provide resources to schools that are particularly poised to improve their diversity recruitment efforts and replicate or create best practices, we can begin to address this systemic need.

Efforts to increase workforce diversity in the PA profession are enhanced when colleges and universities are able to leverage primary care training funds with other Federal programs that specifically target recruitment and retention of underrepresented minorities. PAEA therefore supports the restoration of funding for the Health Careers Opportunity Program, and increased funding for the Scholarships for Disadvantaged Students and National Health Service Corps. Historically, access to higher education has been constrained for individuals from disadvantaged backgrounds and these individuals are more likely to work in underserved areas addressing primary care needs.

Title VII Funding

Title VII funding fills a critical need for curriculum development, faculty development, clinical site expansion and diversification of the primary care workforce. These funds enhance clinical training and education, assist PA programs with recruiting applicants from minority and disadvantaged backgrounds, and enables innovative programs that focus on educating a culturally competent workforce. Title VII funding increases the likelihood that PA students will practice in medically underserved communities with health professional shortages. The absence of this funding would result in the loss of care to patients with the most urgent need for access to care.

Title VII support for PA programs was strengthened in 2010 when Congress enacted a 15 percent allocation in the appropriations process for PA programs. This funding will enhance capabilities to train a growing PA workforce and is likely to increase the pool for faculty positions as a result of PA programs now being eligible for faculty loan repayment. Huge loan burdens serve as barriers for physician assistant entry into academia.

Student Debt—The Looming Crisis

The cost of higher education has risen in recent years.—The average cost of a master's degree for a resident in a public PA program is $36,739; for a non-resident, it is $62,984. For a private PA program, a student will pay $68,712. Debt influences the first job choice of many graduates. They may forgo primary care because they deem it easier to repay high levels of graduate and undergraduate debt by working in a specialty practice. PA faculty often have to counsel students to "keep the faith" by applying for, and hopefully receiving, NHSC loan repayment. NHSC programs are a conduit for primary care practitioners and educators. Here is what one former NHSC Scholar and current PA faculty member (Oregon Health Sciences University PA Program), Antoinette Polito, had to say about receiving an NHSC scholarship:

> "I moved to Seattle, Washington . . . and began work at a cooperative women's health collective. I was a medical assistant and patient advocate. At the same time I returned to school to take the science prerequisites I knew that I would need to apply to a Physician Assistant program. I took that leap in 1997, packed my bags again, and headed back across the country to Duke University in Durham, North Carolina . . .
>
> I was so fortunate to apply for and receive a National Health Service Corps Scholarship to support my studies at Duke. With my longstanding commitment to provide care to the underserved, the Scholarship was a wonderful acknowledgement and a gift in so many ways. After graduating from the Duke University Physician Assistant Program in 1999 with a Master of Health Sciences, I joined a federally funded cooperative of primary care offices in rural North Carolina as a National Health Service Corps Scholar. I worked in Robeson

County, along the South Carolina border, in a designated medically underserved area. The poorest county in North Carolina, Robeson's population is divided just about equally among rural Caucasians, African-Americans, and Lumbee Native Americans.

The healthcare challenges in this area known as the "stroke belt" for its high rates of cardiovascular disease, diabetes, and tobacco abuse, were monumental. The county "boasted" one of the highest rates of syphilis in the Nation. Care was desperately needed and appreciated. My 3 years working at four facilities in four small towns within the county limits was an incredibly rewarding experience . . . The medicine was challenging and the outcomes not always what I would have wished. However, the lessons learned were priceless and the impact on me substantial. I have the NHSC to thank for that . . . I feel strongly that educating the next generation of primary healthcare providers is the best way for me to contribute to our future . . ."—Antoinette Polito, MHS, PA-C, Assistant Professor, Oregon Health & Science University PA Program.

With an ever-worsening shortage of primary care providers, the availability of well-trained PAs, who can practice with a significant level of autonomy, is critical to meeting the demands of patients. PAs are crucial to increasing access to care for rural and underserved communities, as they are often ***the only*** primary health provider in these areas. PAs play an important role in addressing the growing need for primary care and other health care areas in the United States in a cost-effective way; in many ways, they are "just what the doctor ordered."

PREPARED STATEMENT OF THE NATIONAL RURAL HEALTH ASSOCIATION (NRHA)

A strong investment in rural training, placement, and retention programs is crucial to rural Americans' access to care and a wise investment of taxpayer dollars. The shortage of primary health care in rural America represents one of the most intractable health policy problems of the past century.

This problem will only worsen. In just 20 years, 20 percent of the U.S. population will be 65 or older, a percentage larger than at any other time in our Nation's history. Just as this aging population places the highest demand on our health care system, we have some experts who predict a national shortage of physicians alone will be close to 200,000. If that becomes a reality, 84 million patients could be potentially left without a doctor's care. Rural patients are in desperate need of a renewed focus on physician training, placement, and retention.

• Rural Americans are, per capita, older, poorer, and sicker than their urban counterparts. According to the United States Department of Health and Human Services, "rural areas have higher rates of poverty, chronic disease, and uninsurance, and millions of rural Americans have limited access to a primary care provider."

• Rural residents have higher rates of age-adjusted mortality, disability, and chronic disease than their urban counterparts, according to the U.S. Department of Agriculture.

• Rural residents are more likely to be uninsured, more likely to have coverage through public sources, and less likely to be privately insured than residents of urban areas.

• Twenty percent of the U.S. population lives in rural America, yet they are scattered over 90 percent of the Nation's landmass. Geography, weather, and distances can make accessing care difficult; cultural, social, and language barriers compound rural health challenges.

• Seventy-seven percent of the 2,050 rural counties in the United States are designated as primary care Health Professional Shortage Areas (HPSAs). Nine percent of all rural counties in the United States have no doctors (MD or DO) at all.

• There, the ratio of primary care physicians per 100,000 people in rural areas is less than half of that in urban areas.

• More than one-half of all patients in rural areas travel an average 60 miles to receive specialty medical care, compared to only 6 percent of urban patients who do so.

• Payment equity for providers and hospitals remains critical to rural physician recruitment and retention, yet the President's budget proposes to reduce reimbursement to Critical Access Hospitals and eliminate the status for some facilities. The budget proposal does this in spite of the fact that 41 percent of these facilities already operate at a loss.

The NRHA is a non-partisan and non-profit member driven organization with over 21,000 members nationwide, which includes a broad spectrum of the rural physician workforce. Our diverse membership represents a collection of individuals and

organizations with a common dedication to addressing the health care needs of rural and underserved beneficiaries.

[Whereupon, at 11:54 a.m., the hearing was adjourned.]

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